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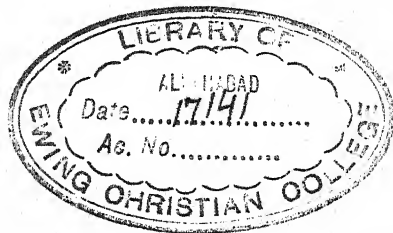
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THE GANG AGE

A STUDY OF
THE PREADOLESCENT BOY AND
HIS RECREATIONAL NEEDS

BY
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INTRODUCTION

The Twentieth Century has been called "The Century of the Child." This name is probably well merited. Never before has so much intelligent care been devoted to the child and his problems. Our expenditure for education is enormous. The maintenance of the public school system of the United States costs over a billion and a half dollars every year, to say nothing of the vast expenses of parochial and private schools and other educational agencies. The health of the child is cared for by new and improved methods, children's clinics are multiplying and public health work is giving more and more attention to the child's physical welfare.

But neither education nor health is the most important thing in the life of the child. The training of character is vastly more necessary. And this, we are beginning to realize, is not wholly a matter of formal education. The average school year in the public schools is only 164 days and the average pupil attends only 130 days. If we are liberal enough to reckon the average school day at five hours it will still be apparent that the child averages less than two hours a day in school. On the other hand the best-informed writers feel that eight or nine hours represents roughly the amount of time the child spends in

an average day on play and other leisure-time activities. It is easy to guess that the eight or nine hours of play will be more potent in the formation of character than the two hours or less spent in school. Only at play is the child really himself. It is then that he makes friends, absorbs ideals, and chooses his heroes.

The influence of recreation on character has been confirmed by experience. With the establishment of an excellent playground system in South Chicago juvenile delinquency fell 29 percent. Binghamton, N. Y., and Passaic, N. J., report even more remarkable experiences. Thurston ('18) studying a series of 124 unselected delinquents in connection with the Cleveland Survey reports that in 75 percent of the cases there was a clear connection between the delinquency and the use of spare time. In the same survey, on the other hand, Gillin ('18) made an intensive study of a number of adults conspicuous for their wholesome citizenship and concludes that "the evidence shows that spare-time activities, either directly or indirectly, have had a vital influence on the lives of these people." He finds, moreover, that these spare-time activities nearly always dated back to school days. The leisure time of the school child has a deep influence on character, for better or for worse.

Leaders of community thought have not been slow to realize this. The last quarter of a century has seen an enormous development of supervised recreation work. The Boy Scouts of America, organized in 1910 and chartered by Congress in 1916, have already more than half a million active boy members. The Boys'

Club Federation includes about 200 clubs, each with paid workers and specially equipped buildings, with a total boy membership of about 150,000. The "Y", the churches, the public and private schools are all showing an enormously increased interest in the problem of the child's leisure time.

Growth being so rapid it was perhaps inevitable that practice should sometimes outstrip theory and that results should be obtained more by rule-of-thumb methods than by the application of scientific principles. This contrasts with other fields of modern child welfare work. Whatever shortcomings present day educational practice may have, it may at least be said that there is a commendable effort to put education on a scientific basis. Curricula are constructed with an eye to known needs, methods of instruction are devised with due regard to the principles of psychology, and results are measured by the technique of psychometric tests. Above all, there is a praiseworthy effort to keep the needs of the individual child in view. So too, the modern treatment of juvenile delinquency calls upon the psychologist and psychiatrist for aid. Cases are not disposed of by random methods but the authorities try to study the causes back of each case and to give to each child the treatment which his individual needs require. Recreational work has not kept pace with these other fields.

The literature of recreational work has been written almost exclusively by active workers from the field. Fiske ('10), McKeever ('13), Gibson ('16), and Hennrich ('25) are representative contributors to the litera-

ture. In addition, national organizations like the Boy Scouts and the "Y" have numerous chapters on boy psychology in their literature. All these books are helpful. They are eminently practical, having been written, for the most part, by men actively engaged in boy work. But they do not aspire to a scientific treatment of the subject. Most of them were written before certain recent developments in child psychology had taken place. In particular, there are three new movements which have profoundly modified our concepts regarding the child and have added enormously to our knowledge concerning him. The literature of recreational work has scarcely begun to assimilate the contributions offered by these three movements.

The first of the tendencies mentioned is the test movement. The last twenty years and more especially the last ten years have seen the development of surprisingly accurate methods of measuring native intelligence. At first this new technique seemed of interest only to educators; but now its field of usefulness is much broadened. It is now known that differences of intelligence modify enormously the reactions of children outside of school as well as within. No field of work which is concerned with children can afford to neglect the data being offered by workers in this field. It is known that the interests and amusements of the bright child are very different from the interests and amusements of the dull child. Recreational workers must not overlook these important differences.

Secondly, the development of social case work has thrown a flood of light on child life. Originally de-

veloped as a method of treating indigent families this technique has long overstepped its original boundaries. In the hands of the visiting teacher it is proving its usefulness in treating minor conduct and scholarship difficulties of school children. In the hands of the research worker it is throwing light on the life of the family. To the recreational worker it offers a means of understanding many traits in the children with whom he works, when more superficial methods would leave the same traits unexplained.

The third movement referred to is the growth of clinical psychology. There now exist in nearly all parts of the country clinics for the study of delinquent or problem children. These clinics make use of mental tests and social case work, so that they are debtors to the two movements mentioned above. But they have also their own characteristic method of study, the use of mental analysis. This technique, developed originally from the researches of Freud and Jung, is proving remarkably efficient in solving many otherwise baffling behavior problems. For the understanding of "queer" or "nervous" children the recreational worker must use the knowledge furnished by these clinics.

A common tendency found in all three of these movements is the treatment of the child as an individual. The social worker, the clinician and the teacher, all are learning to regard each child as a separate problem, requiring individual study and individual treatment. This must also be the attitude of the recreational worker if he is to do his best work.

The contributions mentioned above are not available to the recreational worker's needs without some modification. The test movement has produced interesting results; but difference of intelligence level has been studied principally for its influence on school work. The recreational worker is interested in such difference principally for its effect on play and social reactions. The social worker and clinician have brought forth extremely valuable material but it is concerned with the destitute, the delinquent and the psychopathic child while it is the normal child with whom the recreational worker must deal. He is interested in what the social worker can tell him about the influence of bad gangs on the delinquent boy; but he will find practically nothing in the literature on a topic which is still more important to him—the influence of the *normal* gang on the *normal* boy.

The student of recreational problems, then, must not be slavishly dependent on others for his information. His is a distinct field and he must work out his own technique with the tools which he has borrowed from others.

The present study seeks to answer the question, how can modern social and psychological methods aid the recreational leader who deals with boys of the gang-age? For this purpose an experimental Boy Scout troop and a pack of Wolf Cubs¹ were organized and

¹ The *Wolf Cubs* are a younger-boy Scouting organization founded by the same Baden-Powell who is the father of Scouting. In England and some other countries they have been organized on a large scale. In the United States they have been introduced locally in a few cities.

intensive recreational works were instituted. Of these 119 were studied intensively. The study included (1) a study of each boy's ability by mental tests, (2) a physical examination, (3) a social study of his home background and (4) a personality study of the boy himself. To illustrate certain tendencies not found in this somewhat selected group a few cases were added from the records of a psychiatric clinic, a juvenile court and a family case working agency. This study seeks to throw a light on the influences which modify the character of the boy, particularly those influences operative during his spare time, and to indicate how the recreational worker must take these influences into account in performing the task of character-building which is his.¹

BIBLIOGRAPHY

A thoroughly satisfactory psychology of childhood has yet to be written. The general reader will probably find O'Shea ('24) the best introduction. The book is a collection of articles by specialists in various fields of child welfare. Gruenberg ('22) has prepared outlines with good bibliographic material which will serve as a guide to more extensive reading.

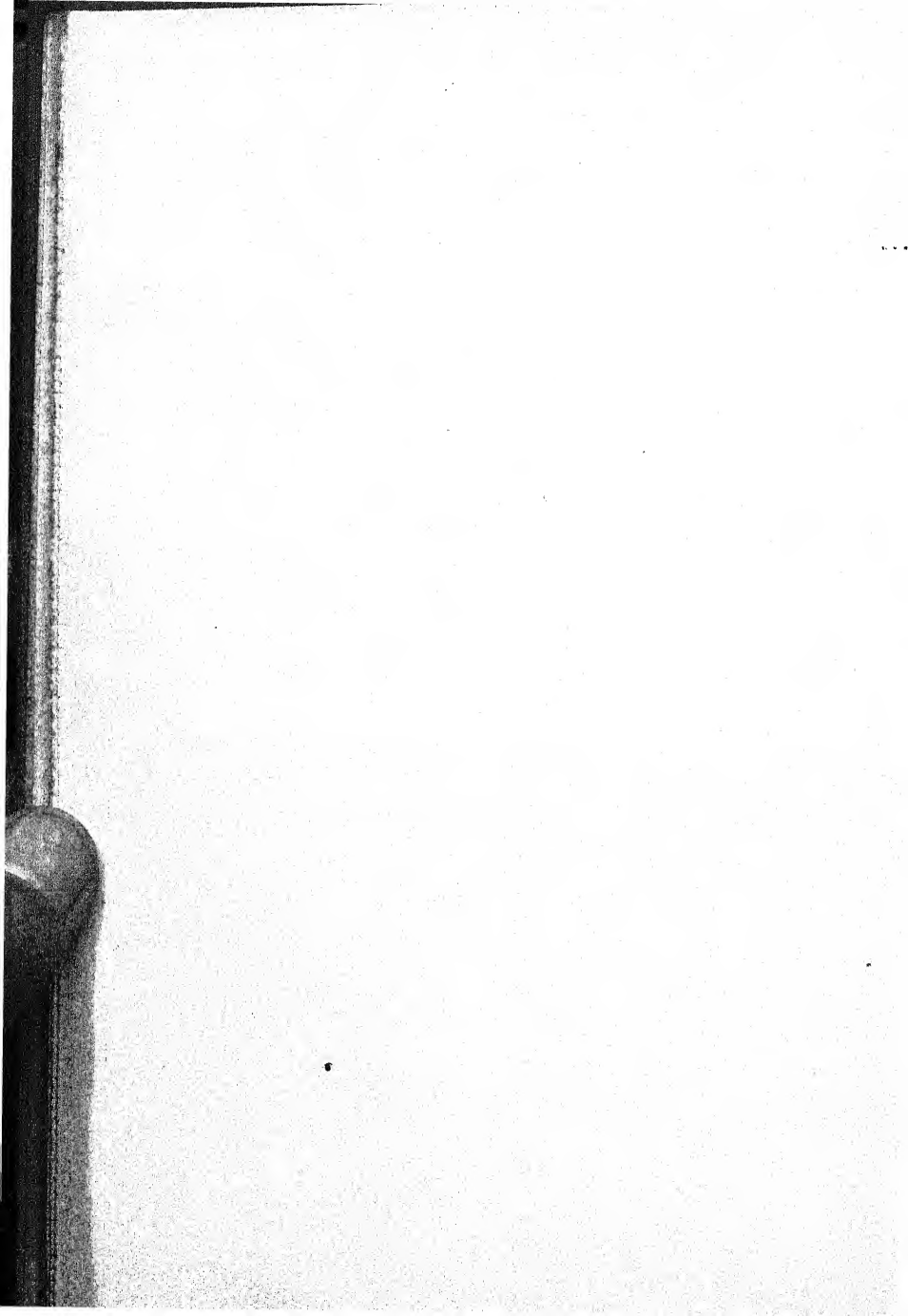
The reader who wishes to pursue the subject further will find Hall ('04 and '07) interesting as an aid to historical

¹ The present work was originally undertaken as a dissertation for the Doctorate of Philosophy at the Catholic University of America. The author wishes to express his appreciation to the various members of the faculty of that institution who helped him with their encouragement and advice, particularly to Dr. John O'Grady, Dr. Wm. J. Kerby, Dr. John M. Cooper and Dr. Thomas Verner Moore.

perspective. Kirkpatrick ('11), Stern ('24) and Compayré ('10) represent the same general method of approach. Practical workers among boys will find Fiske ('10), McKeever ('13), Gibson ('16) and Forbush ('07) useful. Of these Forbush is the best. Waddle ('18) and Norsworthy ('18) wrote from the educational point of view. Koffka ('24) presents child psychology as a follower of the *Gestalt* school sees it. Hug-Hellmuth ('19) is interestingly Freudian. Two recent works, Gesell ('25) and Baldwin ('25) represent a distinct advance in the study of the preschool child.

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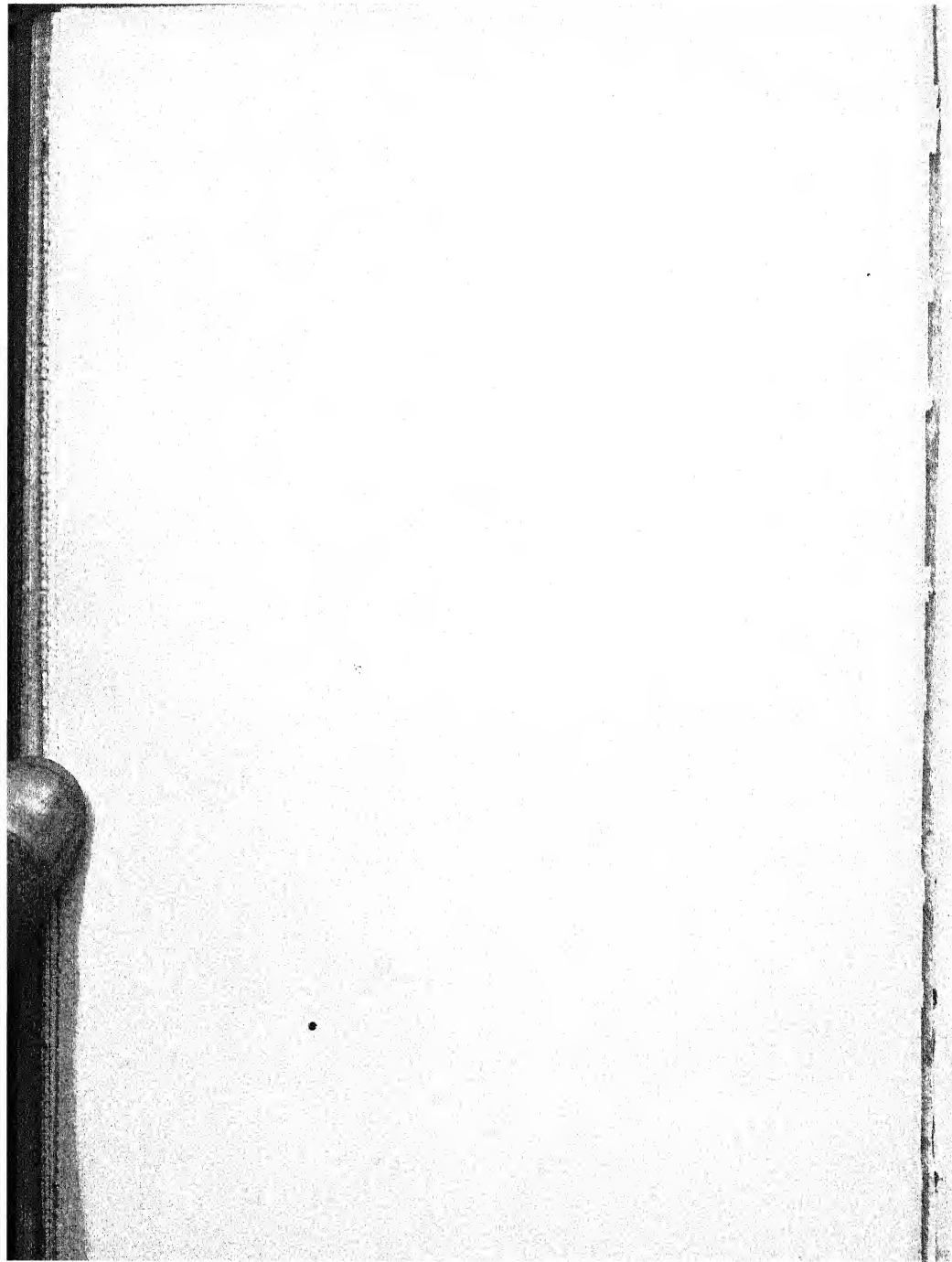
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THE GANG AGE

CHAPTER I

THE PERIOD AS A WHOLE

There comes a time in the life of every boy's mother when she feels like the hen which hatched ducklings. Hitherto the lad has conformed in a general way with her ideals of what a child should be. Now she suddenly realizes that he is different. He is no longer content to play quietly about the house or in the immediate neighborhood. In company with a group of his peers he conducts long and mysterious expeditions to parts unknown. What "the gang" does becomes his ultimate standard. He plays the group games with extraordinary ardor. Baseball becomes almost a religion. He is now very much a *boy*. At the time this change takes place he is perhaps eight or ten.

Five or six years later his mother again realizes that a change has come over him. He puts aside the things of a child, not without ostentation. He drops out of Scouting. He clamors for "long pants."• He develops a surprising concern about his personal appearance. There often is a girl in the case. But at any

event he breaks definitely with the younger boys and begins to take himself very seriously.¹

Between these two changes there intervenes a period which may be called *preadolescence*, a term which has been employed by a number of writers, sometimes with this, and sometimes with a different sense. It is the gang age, and a most critical period in the boy's life. Before the gang age he is a child; after it he is almost a man. During this important transition period great changes take place. Not only is physical growth extremely rapid, but mental development, too, reaches its perfection. It is a period, too, of socialization. The boy emerges from it a citizen.

In order to understand more clearly just what these changes involve the following typical cases are offered. Consider first a boy who has not yet entered the pre-adolescent period.

Case 1. Wilbur is a fine, healthy boy of eight, blessed with freckles and with a wealth of bright red hair which simply will not stay in place. He is always on the move. To remain still one moment is an impossibility. If you want a detailed account of the writhing, squirming and wriggling of which he is capable read a study by Carman ('02) who patiently set

¹ Between infancy and manhood there lie an infinite number of degrees of maturity, interrupted by several distinct nodal points such as those mentioned above. In dealing with the boy it is of the first importance to know the exact degree of maturity which he has reached. For each degree of maturity has its characteristic reactions. The writer is working with a rating scale and an objective test to measure social maturity. Preliminary results seem to indicate that social maturity is easier to measure than most other personality traits.

down in order all the activities of a certain restless little boy during a day in school.

Wilbur will occasionally play catch or kick a football. He does not, however, play the standard team games, baseball, football, or basketball. In a year or two he will be enthusiastic over these games; but now he has not enough team spirit to join in games which require co-ordination of players. So, too, in the group of boys with whom he plays there is no solidarity, no leadership. It is not a gang. Now and then he plays with his little sister and her tiny girl chums.

All these things show that Wilbur has not yet reached the preadolescent period. His lack of interest¹ in team games is one indication. His lack of gang² spirit is another. A third is the fact that he plays³ with girls. This last point deserves some further consideration.

Boys below the age of adolescence have not the same interest in the other sex that older boys have. There are, however, several things which tend to bring them together. One is effeminacy of disposition. In¹ every group of a hundred boys there are apt to be one or two shy, introverted characters who are too timid to play with the other boys. They are driven to seek the companionship of girls. Secondly, these younger boys² often play with girls in pure imitation of their elders. Children imitate every other activity of their elders; is it surprising that they imitate this also? Finally³ there is the naïveté of childhood. Little children, having little consciousness of sex, play almost, but not quite, indiscriminately in groups of boys and girls.

This neutral attitude persists until preadolescence and the sharp separation of the sexes is one of the surest signs that preadolescence has begun.

Case 2. Wilbur's brother is eleven years old and answers to the name of "Bill." Bill and Wilbur are good friends but they never play together. In the world of boyhood they belong to different social strata. Bill is in the sixth grade and his class has an esprit de corps which shows itself in unexpected ways. Entirely on their own initiative these boys organized a football team in the fall and in the spring a baseball team. During noon recess they developed an extraordinary habit of conducting systematic raids on the seventh and eighth grades. Woe to the unwary eighth-grader who would lift his hand against a sixth-grade boy. Immediately the sixth grade swarms over him to his discomfiture. For the sixth grade is a unit.

Bill is too young to be a Scout, but he is a good Wolf Cub. Bill is a very active member of a Wolf Cub *Six*—the analogue of the Scout *Patrol*. Until a few months ago he used to play now and then with some little girls. He has given this up now and seems to regard it as a sort of childish weakness.

Bill is a typical preadolescent. He has the usual preadolescent attitude towards girls and he has the gang spirit. He shows his gang spirit not by belonging to any highly-organized gang, but by the readiness with which he plays team games, by his class spirit and by the way he joins in the club work. This is the stuff of which gangs are made. It is probable that the gang as described by Puffer and others, the gang with

membership requirements, elected leaders and initiations is purely a social institution. It is the result of special conditions, such as the feeling of solidarity which arises among a group of delinquents when they realize that society has placed them outside the pale. Such closely organized gangs are uncommon. What we meet on every hand is the gang spirit, which shows itself in teams, in clubs and in loosely organized gangs. Out of this the organized gang arises.

Wilbur and Bill illustrate the change from childhood to preadolescence. It will now be in order to study the end of the period and the change from preadolescence to adolescence. The following three cases will bring out the salient points.

Case 3. Carl is 13 years and 9 months old. In the past six months he has grown 2.25 inches, which represents, of course, very rapid growth. This sudden rise in the growth curve is characteristic of the approaching end of preadolescence. The psychological changes which accompany this rapid growth are scarcely less striking. Always a motor type, Carl has made rapid strides in his skill in games. He is fast becoming an athlete. He is the recognized leader of the school, even though older and brainier boys are in attendance. He also has his own exclusive gang of four among whom, also, he is the leader. They roam about at night and find all manner of harmless fun.

Carl is still a preadolescent. So are his companions. He still enjoys Scout meetings. But very recently he spent an evening roller skating with a girl. It is the beginning of the end. !

The following two cases illustrate the change to adolescence. In Maurice's case it was sudden; with Ray it was more gradual.

Case 4. On the first of May Maurice was 15 years and 4 months of age and was doing moderately good work in a freshman class of a public high school. He was an enthusiastic Scout and a Patrol Leader. His chief recreations were active outdoor play, including baseball, football and basketball, Scout activities, reading and occasionally movies and radio. He chummed around with a group of boys in his class in high school and also with some boys in the eighth grade of the grammar school from which he had graduated the previous June. Among the latter was Frank, his constant chum and most intimate friend.

On May 8th Maurice had a violent altercation with his Scoutmaster. It was most unusual for Maurice to be disrespectful. He was usually very tractable. The next day he apologized. On the 18th he spent a long afternoon working on a radio set with a boy named Arthur. Arthur was one of a group of older boys who lived near Maurice. For the next month Maurice's time was divided between two loyalties. Part of the time he was with Frank and his old friends, the Scouts. Part of the time he was with Arthur and the group of older boys who gathered around him, busy with the radio. Thus on the 16th and 17th he was with Arthur. On the 18th he was doing merit badge work with the Scouts. The next day he was playing ball with Frank. On the 22nd he went to Arthur's house to see a radio set. Then from

that time until June 9th he spent his time with the Scouts and did not visit Arthur at all. On the ninth he played ball with Arthur. On the 10th he was back playing ball with Frank. From the 12th on he threw in his lot definitely with Arthur much to the surprise of Frank who could not understand this sudden coldness of his old-time friend.

At an interview on July 3rd he spoke tolerantly of Frank as "a good-natured, little, chicken-hearted fellow." He was definitely hostile towards his Scoutmaster and his teachers with whom he had been quite friendly two months before. The least exercise of authority irritated him. "Nobody can make me do anything I don't want to do," was his rather sweeping statement. His language about his teachers was quite virulent. He is quite indifferent towards his old friends. Arthur and his radio are the only things about which he can talk seriously. With perfect seriousness he discusses fantastic plans about going into the radio business and leaving school. He has the bored air of a man of the world.

Case 5. Ray graduated from grammar school in June at the age of 13. For the past year he was an enthusiastic Scout and one of the outstanding leaders of the troop. He was rather quiet and shy but very popular with the other boys. He played all the team games moderately well.

After school closes Ray has much time to himself and he begins to while away the time with Imogene, a girl who lives a few doors away. This is a pleasant experience enough, but the real thrill comes when he

meets Louise. Now he spends less and less time with his old companions and more and more with Louise and the older boys who belong to her circle. He learns to dance. He enjoys house parties. He is impatient at the stupidity of his parents who cannot see the absolute necessity that he be dressed in long trousers.

In September he returns to school and does poorly. He has lost interest in his lessons and wants to go to work. He still joins in Scout activities, but in ever decreasing degrees. His former chum, Anton, is now treated with scant courtesy. His mother is distressed at the change which has come over him and she tries her hand at the impossible task of keeping him away from Louise. There is no doubt now about the change which has come over Ray.

The most striking change which comes over a boy when he becomes adolescent is his sudden change of companionship. Maurice dropped out of the Scouts and became intimate with Arthur. Ray, too, deserted Scouting in favor of the superior charms of Louise's circle. Preadolescents and adolescents do not mix. They are as oil and water. Every club leader knows that it is almost impossible to induce an adolescent to attend a club meeting of preadolescents, a Scout meeting for instance. Or, if he does attend, the adolescent sits disdainfully by watching the uproarious games of the younger boys with an air of contempt. A skillful play leader can induce a group of adults to play "Farmer in the Dell," but a group of adolescents—never.

Secondly, the adolescent begins to think for himself.

Teachers find they can use an entirely different method with him. Thinking now begins to supplant memory work. He is no longer as docile as of yore. He resents authority in parents, teacher and club leader.

Finally, the adolescent takes a different attitude towards girls. In real life he does not always fall desperately in love, as he does in fiction. But he begins probably to realize that there is something to be said for the weaker sex.

What are the age limits of the preadolescent period? All students of the subject agree that they are extremely variable. Yet it is not without interest to try to approximate the average age when preadolescence begins and ends. Puffer ('12) in his classical study of the gang gives 10 to 16 as the gang age, but adds that the extreme age is 7 to 19. Lee ('15) thinks that the period begins at about 11 and lasts until about 14. He speaks of the variability of its onset which may be anywhere from 9 to 12. W. S. Hall (in O'Shea '24, p. 301) gives 10 to 14 as its usual extent. Fiske ('10) writes that the gang age covers the years 10 to 14. Marro ('00) distinguishes a period beginning between 10 and 13 and lasting until 17.

All the above writers recognize a period corresponding to what is here called preadolescence, and their estimates cluster around the ages 10 to 14 for the duration of the period. There are others, however, who divide the periods somewhat differently, calling the period which follows 12 years, adolescence. Apparently Stanley Hall is responsible for this. He seems to have been the first to do so. He is followed by Mudge ('22)

who says: "Admitting that the characteristic marks may appear earlier in some cases than in others, we may conveniently consider the period of early adolescence to include the years from twelve to fourteen or fifteen." Gibson ('16) places early adolescence from 13 to 16. Gruenberg ('22) assigns adolescence to the years 12-16. Kirkpatrick recognizes a "transitional period" from 12 to 18.

The reader will be struck with the extreme variability of these estimates. This is not surprising, for all the authors quoted based their judgment, not on any objective evidence, but on mere opinion. An exception must be made in favor of Puffer, who, however, was working with a highly selected group. Is there, then, no way to put these estimates to the test of objective verification? There is. Preadolescence is not a purely arbitrary term. It is, one is convinced by experience, a unitary period which must be dealt with according to its own laws.

Certain evidence from the experimental group is herewith presented. Here two clubs were maintained, a troop of Scouts for the older boys and a pack of Wolf Cubs for boys under 12 who were not permitted to enter Scouting by the rules of the Boy Scouts of America. It was found that below a certain age the boys would not join and after a certain age they automatically lost interest. The distribution of ages of the boys in our clubs then ought to give a fairly good idea of the extent of preadolescence. It must be added that we found it quite possible to inter-

est the older boys in other sorts of club work, in athletics, for example. But we tried to keep our clubs purely preadolescent clubs by encouraging always the activities which seemed to interest the majority of the boys and by making no attempt to cater to the older boys who found this uninteresting and started to drop out. Figure 1 shows the distribution.

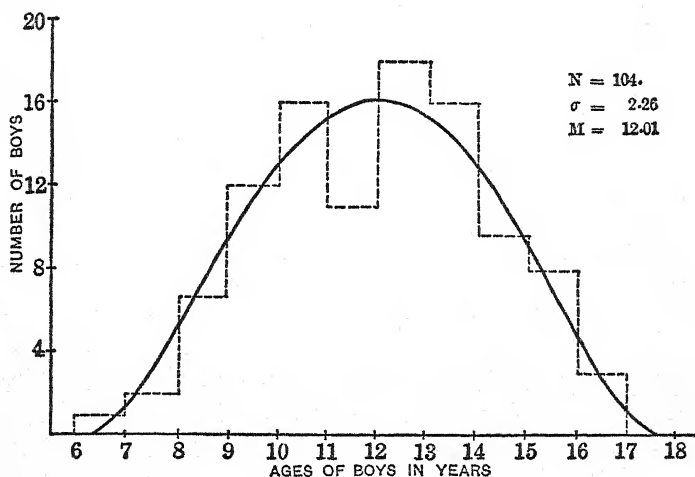


FIGURE 1.

Distribution of ages of boys in experimental group; broken line is a histogram showing actual distribution; continuous line is a Pearson Type II curve plotted for same data, showing most probable form which the distribution would take if the population were indefinitely increased.

The causes which determine the onset and end of the preadolescent period are not altogether clear. But

its end seems to have a striking relation to the onset of puberty. Figure 1 shows that half of the boys have dropped out of our clubs at the age of 14 years, 6 months. Six cases selected for intensive study showed the appearance of the characteristic signs of adolescence which I have mentioned above, at an average age of 14 years and 5 months. The average age of puberty as shown by various investigators tabled in Table I varies between 14 years and 15 years, 6 months, with a mean at 14 years, 10½ months.

TABLE I. AGES OF PUBERTY ACCORDING TO VARIOUS INVESTIGATORS

Investigator	Date	No.	Group Studied	Av. Age of Puberty
Baldwin.....	1916	1317	Country boys from Maryland	14.00
Crampton...	1908	4800	New York high school boys...	14.39
Marro.....	1900	180	Italian boys.....	15.19
Baldwin.....	1916	3600	Baltimore school athletes....	15.25
Godin.....	1903	French boys.....	15.50

Average age 14.87

N. B.—“Average age of puberty” in the above table means the age when 50% of the boys have become post-pubescent. In some cases the required age is stated by the author explicitly; in other cases it is obtained by interpolation in his published tables.

The relation is shown in a much more striking manner by the data of Figure 2. Here the solid line is the right half of the curve of Figure 1. With it are plotted the data reported by Crampton and by Marro for the appearance of puberty. The relation is particularly striking in Marro's data; but the curve plotted from Crampton's data begins and ends with

the solid line although it lags behind for the intermediate ages.¹

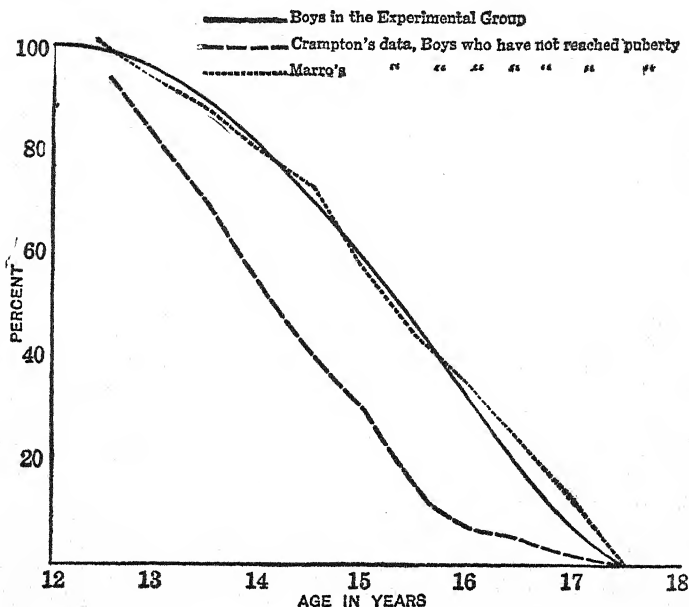


FIGURE 2.

¹ Modern research on the ductless glands has thrown considerable light on the causes of these phenomena. For a long time the ductless glands were a mystery to the physiologist. It is now known that they secrete substances called hormones or autacoids which are absorbed by the blood. These autacoids have remarkable effects on the organism. For instance, the autacid secreted by the thyroid gland has been isolated and is known as thyroxin. It has been experimentally demonstrated that thyroxin has a profound influence on metabolism. If an animal is deprived of its supply of thyroxin through removal of the thyroid gland it shows a thickening and swelling of the skin, low body temperature and increased sugar tolerance. It becomes slow and sluggish and metabolism is diminished. In short it presents the typical picture of myxedema. But if

SUMMARY. Preadolescence is a distinct period in the life of the boy. It is distinguished from the period of childhood which precedes it by the rise of the gang spirit, an awakening interest in team games and a hostile attitude towards girls. It is distinguished from the period of adolescence which follows it, because the adolescent develops a newly independent spirit, shows less hostility towards girls and breaks sharply with preadolescent gangs. The period of preadolescence in the most typical cases begins between the eighth and eleventh birthday and it ends at puberty. The characteristic changes which mark the end of preadolescence are certainly, and those which mark its begin-

thyroxin is administered either hypodermically or by mouth these symptoms disappear.

It is now pretty generally admitted that the striking physical and mental changes at adolescence are due to the activity of an autacoid substance secreted by the cells of Leydig in the gonads, the so-called "interstitial" cells. The autacoid in question has never been isolated; but it is known that whenever the Leydig cells atrophy through destructive tumors, through the activity of X-rays or in cryptorchism the characteristic changes of adolescence fail to appear.

The other ductless glands also seem to play some part in this phenomenon. It is known that the thyroid has an influence; for in myxedema spoken of above the individual does not develop characteristically at adolescence. The same is to be said of the anterior lobe of the pituitary gland. Evidence in regard to the pineal gland is conflicting, but the weight of authority inclines to the view that this gland has also a positive influence. The same may be said of the cortex of the adrenal gland. There is some experimental evidence that the thymus has an opposite effect and that its removal tends to hasten adolescence. Others report removal of the thymus without any noticeable post-operative change. It will be seen that the whole subject of the influence of the ductless glands on personality is at present hopelessly complicated; but research workers are constantly bringing to light new facts and the next few years will see many puzzling questions answered.

ning are, possibly due to hormones secreted by the ductless glands.

BIBLIOGRAPHY

Most writers on child psychology fail to draw a sharp distinction between the gang age or preadolescent period on the one hand and adolescence on the other. For this reason much of the material on the period here studied will be found in books on adolescence. Among these Hall ('07) and Marro ('00) are classics, now somewhat antiquated. King ('14) and Mudge ('22) are good popular treatments. Puffer's ('12) study of the gang throws a great deal of light on the period and is still unsurpassed. Although writing primarily from the educational standpoint Pechstein ('24) has probably given the best recent summary on the psychology of this period.

For the physical phenomena of adolescence, see Baldwin ('16), Godin ('03) and ('20), Crampton ('08 fundamental) and Marro ('00). Prescott ('23) gives a good summary of the work done to date on the ossification of the carpal bones as an index to physiological age. His own researches are interesting.

The best popular treatment of the endocrine glands is Harrow ('22). Unfortunately this author cannot always be relied on. Thorek ('24) and Moore ('24) give the latest evidence on the role of the interstitial cells. Krabbe ('23) and Izawa ('23) give the latest results on the pineal gland and Tierney ('23) may be consulted in reference to the pituitary gland. Weil ('24) and Vincent ('24) are authorities on the whole subject of endocrinology and Hoskins ('22) gives a good summary of the work done to that date.

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CHAPTER II

THE ELEMENTS OF CONDUCT

It is the business of the recreational worker to build character; but if one is to modify human behavior, he must first understand something of the causes of human behavior. This knowledge is as essential to the social scientist as anatomy and physiology to the physician. The present chapter, therefore, will attempt a classification of the factors present in human behavior and succeeding chapters will treat the various factors separately. Figure 3 gives a schematic classification of these factors.

An increasing number of writers find it convenient to treat all behavior, human or animal, as an adaptation to environment. All conduct indeed involves an acting subject and an object which is acted upon. Without these two elements there can be no behavior. A man cannot eat when there is nothing to eat; nor fight without an opponent. Each element contributes its share towards shaping the final act. The same man will react very differently to different kinds of food; and different men will react differently to the same food. The environment which calls forth the adaptation and the personality which adapts itself to the environment, each is a factor in determining the act. This furnishes a basis for a convenient division of the

factors of conduct into environmental factors and subjective factors.

Environmental Factors in Conduct. By environment in the broadest sense is understood the sum-total of all the things and persons with whom an individual comes in contact and who influence his conduct. It may be non-social or social. Non-social environment includes all the non-personal elements in one's surroundings. Thus the house and neighborhood in which he lives, the clothes he wears, his books, his food, his playthings, are all parts of a boy's non-social environment.

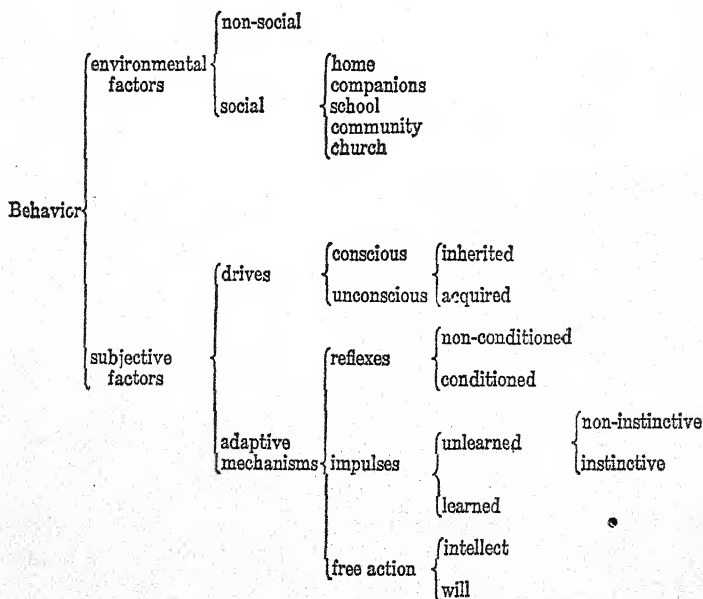


FIGURE 3.—Classification of the elements of conduct.

Much more important and interesting is the social environment which includes all persons with whom he has any contact in his daily life. The first social environment is the home; and the personalities of parents, brothers and sisters leave an indelible impress on the growing child. Later he plays with other children from other homes, thus for the first time enlarging his circle of social contacts. Later still the school brings him into contact with other groups of children from other neighborhoods. As he approaches manhood he becomes conscious of his duties as citizen and gains a sense of solidarity with other citizens in other parts of the country who influence him in numerous subtle ways, though he may never see their faces. In the meantime the most inclusive of all social groups, the church, which knows no national nor racial lines, has been exerting a steady influence on his character. Thus the boy as he reaches manhood bears the marks of numerous social contacts which profoundly influence his personality.

Subjective Factors in Conduct. Environment, however, produces only a limited effect on character. In the same environment different men will react in vastly different ways. Thus, the sight of a hickory tree may suggest to a small boy the idea of climbing up and gathering nuts. To an artist it is an inspiration for a sketch. To the farmer who owns it the tree is only potential fire-wood. Different people react differently because they have different views of life. The boy comes whistling down the road in search of fun; the artist with his sketch-book is seeking the pictur-

esque; the farmer with his axe is looking for firewood.

What is true of these three is true of all of us. Each has his own hobbies and ambitions, in short his own peculiar drives. A drive is a relatively permanent set by which a man is inclined to seek or avoid a certain thing. Some drives are common to all men. Thus all of us wish, though in different degree, to avoid bodily pain, to keep the respect of our fellows, to see the members of our immediate families live happily and so forth. Other drives are peculiar to the individual. Thus one man has set his heart on making money, another on gaining political prominence, another on advancing some great cause. The sum of all a person's conscious drives is called his *plan of life*. In some individuals this plan is very vague and ill defined. Others have very definite ideals to which they are willing to sacrifice everything.

But not all drives are conscious. One of the most brilliant triumphs of modern psychology has been the discovery of the unexpected importance of the unconscious in human life. Of course it has always been quite evident that there is some unconscious content in the mind. Every educated man, for instance, has learned the multiplication table in childhood and now he is able to recall any part of it at will. Where is this knowledge when he is not actually thinking of it? It is in his mind, but he is not conscious of it. So much is quite evident.

Modern psychology has added two facts to the above.
(1) The unconscious content of the mind is not static

but dynamic and constantly exerts an influence over human life. The fact that $7 \times 6 = 42$ may not affect my conduct except when I call the fact into consciousness and use it in solving a problem. But the knowledge that a certain man has wronged me may influence my conduct in numerous ways even when I am not actually thinking of the fact. It may, for example, create in me an unaccountable prejudice against a third man who happens to look like my enemy. I dislike this third man but am unable to give a reason for it. The reason is my unconscious association of him with my enemy. (2) The fact that $7 \times 6 = 42$ can be recalled at will. But truly unconscious elements of mental life are so thoroughly repressed that they cannot be recalled at all or can be recalled only by the special technique of the psychiatrist. There is some confusion of terms here but in this essay the word *unconscious* will be understood as referring to those elements of life which cannot be recalled without technical methods.

The evidence for this modern concept of the unconscious is rather extensive. First, there is an enormous mass of clinical material. There are recorded a very large number of cases of mental disorders, particularly the psychoneuroses, which yielded to a treatment based on this concept of the unconscious. For a simple instance consider the war neuroses. A soldier comes to the base hospital with a paralyzed arm. The most thorough physical examination fails to discover any somatic basis for the trouble. The soldier is honestly unable to give any reason for the paralysis. The phy-

sician assumes that the trouble is functional and gradually the man is brought to realize that the paralysis represents an unconscious wish to leave the trenches. As soon as this is brought home to him the paralysis disappears. Thousands of similar cases in the literature demand a concept of the unconscious as outlined above.

There are besides a number of experimental proofs. For example, consider Mühl's ('23) work with automatic writing. The subject is given an interesting book to read and while he is distracted by the book a pencil is put into his hand and he begins to write. When the experiment is over he does not remember having written anything. Both during and after the experiment his mind has been thoroughly occupied with the book he was reading. Yet the things which have been written automatically are extremely interesting. They may refer to long forgotten experiences of childhood. In the case of one young woman Mühl was able to verify by the patient's mother and nurse many of the things which the patient wrote automatically concerning her childhood, things which she had apparently forgotten and of which she had no conscious memory. This seems like a crucial proof of mental content which cannot be recalled and which can influence conduct.

The question whether some of our drives are inherited and if so how many, is now being hotly debated among students of social psychology. One school represented best by McDougall holds that a rather large number of drives or "instincts" are innate. On the

other hand the behaviorists admit only a few "pre-potent reflexes" as inherited and contend that most of the so-called instincts are really habits built upon these few innate drives. There is need of a great deal of experiment and observation before the issue can be settled with anything like scientific certitude; yet there are two facts which seem to be established already.

(1) There are at least some inherited drives. A few students such as Kuo, Faris and Ayres deny all instincts. Of these only Kuo develops his views in any detail. But the difficulties in his way are both theoretical and practical. It is difficult to explain even in theory how an organism would react at all without some innate tendencies. If the conduct of the newly-born was entirely random how would the young animal ever eat its first mouthful? There must be something in the organism corresponding to hunger however vague and ill-defined. Even Kuo admits that the randomness of the innate units of reaction is "usually restricted within certain fairly definite and discoverable limits" and that "one stimulus will evoke one group of random movements which may not be the same as those called forth by another stimulus of a totally different nature." Besides, there is a rapidly accumulating mass of evidence showing fairly definite reaction patterns in the very young which is hard to harmonize with Kuo's postulate of random activity.

(2) On the other hand many investigations emphasize variability of reaction. Animal instincts are not rigidly invariable reaction patterns but they are profoundly modifiable in response to different situations.

These two concepts of the innateness and variability of instinct fit well with the observed facts of human behavior. Some, no one can say how many, of our drives are with us at birth but these are profoundly modifiable during life; so that in the adult or even in the child it is extremely difficult to distinguish the drives which are inherited from those which are merely habits built upon the inherited drives. Fortunately the question is not of great practical importance in our study of the preadolescent boy. We find him governed by a number of drives and whether these are inherited or acquired it is our duty to modify them along socially desirable lines.

Adaptive Mechanisms. Abstract drives are not enough in themselves to explain conduct. The further problem remains of showing how these drives pass into action. The abstract drive towards self-preservation does not make Johnny eat this piece of bread. He never heard of self-preservation and wouldn't understand it if you tried to explain. All he knows is that he wants that piece of bread. How is the gap bridged over between the highly generalized drive and the very specific act? How do general desires find their concrete expression in conduct? The answer is that drives find their way into behavior along three lines, the reflex, the impulse and the free act. We may apply the term *adaptive mechanism* to these three elements of conduct, because by them the drive is adapted to the particular situation. Thus the general drive to self-preservation becomes adapted to the situation of having food placed before one and

we are conscious not of a general desire to preserve life but of an impulse to eat this food.

The Reflex. It seems to be stretching a point to include the reflex among the adaptive mechanisms; for the reflex is a mere neural mechanism over which the subject has no direct control and it may seem hard to see how it can be called a mechanism by which our drives are adapted to the environment; but even though the reflex does not express in its action the desires peculiar to the subject, yet it is becoming increasingly evident that most reflexes are so adapted to the fundamental human drives that the desires of the individual are pretty well represented by them.

An example will make this clear. Cannon in his classical study of the adrenals has shown that in anger they discharge an autacoid substance into the blood stream. This hormone, epinephrin, has the property of inhibiting fatigue; it halts the activity of the stomach and intestines, gives the skeletal muscle an increased excitability, and rapidly converts the liver glycogen into sugar which passes into the blood forming a temporary reserve supply of carbohydrate material which the body requires in large amounts. Now we cannot say that this activity of the adrenal glands took place because the man wanted it to. In the strictest sense, therefore, it was not an expression of his drive to overcome the object of his anger; but yet the reflex activity of the adrenals is such that they do precisely the thing the man would want them to do if he understood their function and had voluntary

control over them. In this rough sense, then, reflexes are adaptive mechanisms.

Interest in the reflexes is now at a high pitch because the rapidly growing behavioristic school would make them the basis of all human conduct. According to them all conduct consists of reflexes and conditioned reflexes.

The best illustration of a conditioned reflex is perhaps the original and oft-quoted experiment of Pawlow who originated this term in connection with some experiments on the secretion of saliva in dogs. Pawlow found that whenever food was given to a dog there would be a reflex secretion of saliva. The investigator then tried the experiment of feeding the dog a number of times and ringing a small bell at each feeding. When the dog was thoroughly used to this he sounded the bell without giving food and he found that the secretion of saliva still occurred. It had become conditioned to the sounding of the bell. Allport and other social psychologists of the behavioristic school believe that all conduct is built up from simple reflexes in this manner. Thus the baby has a reflex reaction towards food. This is associated with his mother; soon the sight of the mother calls out the same happy reaction that the food did. The food reflex has become conditioned on the sight of the mother. Of course this implies that consciousness has no part at all in human conduct; but this does not disturb a thorough-going behaviorist at all.

There is some experimental evidence which throws doubt on the very existence of the conditioned reflex.

Hamel measured the latent period of the conditioned reflex in human subjects and found that it averages between .200 and .300 of a second. Comparing this with a voluntary discrimination in the same subjects he found no significant differences. Possibly, then, the conditioned reflex is nothing but a conscious reaction. Or in the case of the dog we would say that the animal simply learned to associate the sound of the bell with food and the attitude of expectancy thus created aroused the flow of saliva. Thus the bell would not produce the flow of saliva directly as a true reflex but only indirectly through its effect on the animal. It is significant too that Burnham found that conditioned reflexes disappear in human subjects in deep sleep. An unprejudiced observer, then, must agree with Dr. Moore's statement that "It has not yet been clearly demonstrated that the so-called conditioned reflex is in any sense of the word a reflex action."

Impulses. Most human activity is neither reflex nor conscious choice. We do most things simply because we "want to do them." This is impulsive activity. It is distinguished from the pure reflex because the subject has no voluntary control over the latter, while he has such control over impulses. It is distinguished from the free act because the latter involves conscious choice, while the impulsive act is semi-automatic. By impulsive acts I understand the same things that the Scholastics understood by the activity of the sensitive appetite. They are carried out without the intervention of reason.

Impulsive activity may be learned or unlearned.

Learned impulsive activity is synonymous with habit. Unlearned impulsive activity is a direct expression in conduct of a drive without conscious choice. Thus the boy eating his meal does not do so after consciously deciding that it is the best thing for him to do. His mind may be full of baseball but there is an impulse to eat and he eats. Again a drowning man who clutches at a floating board does not do so after a process of deductive reasoning which shows him that the board, being of lower specific gravity than himself, will keep him afloat. He simply acts impulsively, though his mind be too dazed with fright to permit of any consecutive thought. It is hard to explain exactly how these adaptations take place. Why, for instance, does the drowning man cling to the board, precisely the best thing he could do under the circumstances to further his desire to live? Aristotle postulated the existence of a κοινὴ αἴσθησις, the *sensus communis* of the Scholastics which selected the appropriate acts to fulfill the desires of the sensitive appetite, or, in the terminology here employed, the drives. It would be a divergence from our present purpose to examine this question further.

There are certain unlearned impulses which are so peculiar that they deserve a separate classification. These are the acts which subserve a purpose of which the agent is unconscious. Thus the year-old baby taking its nourishment is utterly unaware that it is doing something vitally necessary for life. It is simply obeying a pleasant impulse to alleviate the pangs of hunger. If feeding were not pleasant it would not feed. There

is a connection established here by nature between the biologically necessary act of feeding and the pleasure which is the only thing which would induce the infant to feed. To this connection between an impulse and a biologically useful act of whose usefulness the subject is unaware, we may apply the term *instinct*. I am aware that this is a slightly different use of the term from that given it by most modern psychologists who make it synonymous with drive, but it is a meaning given it by the distinguished comparative psychologist, Wasmann, who says "Instinct denotes . . . a drive of the sensitive appetite towards certain objects and activities whose purposefulness lies outside of the cognition of the acting subject." This use of the word will not be unfamiliar to students of Scholastic philosophy.

To see the instincts at the best they must be studied in the animal kingdom. The most convincing instance which has come under the notice of the present writer is Fabre's study of the Capricorn beetle *Cerambyx miles*. This beetle is hatched within the heart of an oak. For three years it lives within the tree eating its way along and feeding on the oak wood. The utmost it can learn in these three years is the pungent taste of the best bits of oak and the unpleasant feel of the sides of the passages if they are not carefully planed. It has no smell, no sight, no hearing. It is, in Fabre's vivid phrase, a mere bit of crawling intestine. Yet at the end of the third year the insect displays a most extraordinary foresight. It digs a passage to the outside of the oak, then retires and pre-

pare a transformation chamber, in which it takes a position with head towards the entrance. Fabre proved that the transformed *Cerambyx* cannot bore through wood and cannot turn in the chamber. Therefore if the larva did not dig the passage to the outside and did not turn around in the chamber and face the outside it would be doomed to die, a prisoner in its oak. Here the remarkable effects of instinct are seen. The worm in the oak does not know the deep purpose of its acts. It acts merely from impulse. But this impulse is so adjusted to its needs, that what the insect does from mere impulse serves a deep biological purpose. It is with this in mind that Wasmann in another place says: "In its deepest essence, instinct is the inherited, purposeful disposition of the sensitive cognition and appetite of the organism." It is impossible to say just how deep a part this sort of instinct plays in the impulsive life of man since it is overlaid with such a complexity of conscious processes. But one cannot doubt that it has its share in such activities as are carried out, for instance, under the maternal impulse or the food-seeking impulse.

Learned Impulses or habits account for most of our activity in the course of our daily lives. Any act, impulsive or free, which is frequently performed becomes easier with repetition until it is performed automatically and has become a habit. No habit can originate by itself. Every habitual act was originally impulsive or free. Habits do not modify conduct. They simply facilitate it. Life would be intolerable if we had to choose each minor detail of our life. We simply

settle such things once for all and habit takes care of them after that.

Free Action. The most characteristic sort of human activity is the free act. This takes place when the subject intellectually apprehends the fact that a certain act will further one of his conscious drives, in other words that it is consistent with the plan of life which he has put before him. After this apprehension he freely wills the act. This sort of act is, of course, of the very first importance to the sociologist. It gives him an important way of modifying human behavior. If he can present to men reasons sufficiently cogent for a certain line of action, then they will be influenced to follow it.

There is, as the Scholastics point out, a constant interplay between free and impulsive action. We can freely and deliberately further or inhibit our impulses. Thus if a man has an impulse to eat he may further it by going to the best restaurant and ordering the choicest foods, or he may inhibit it by not eating, to save money, or to do penance or to reduce. On the other hand the impulses, conscious and unconscious, have their influence on free acts. A man's plan of life requires him to go to the office every morning and work. He freely wills to do this; but his free choice is rendered difficult of execution by the impulse to stay in bed. On the other hand a boy's resolution to do well in school is furthered by the impulse to shame another boy by getting better marks than he.

The succeeding chapters of this study will apply these principles to the life of the boy. Chapter III will

consider the part played by conscious drives. The two following chapters will be concerned with unconscious drives. Chapters VI to VIII will treat of intelligence, the most important of adaptive mechanisms. The remaining three chapters will treat of the environmental influences of the home, the gang, and the community at large respectively.

BIBLIOGRAPHY

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For a discussion of the psychological basis of personality see any good textbook of psychology. Among these none is better for the purpose than Moore ('24) who treats the subject from this special viewpoint and with great moderation. The new science of social psychology which seeks to base the explanation of social phenomena on known psychological fact is best represented by Allport ('24). Gault ('23) is also worth reading. The remaining texts treating of social psychology are unsatisfactory psychologically though interesting to the sociologist.

The subject of instincts is being hotly debated now. The standard presentation of the case for instincts is given by McDougall ('21). See also a discussion by this same author ('24). The opposite side has never been presented better than by Allport ('24) and Watson ('24). For a good summary of the present state of the controversy, see Tolman ('23). The reader who wishes to compare the work being done on animal instincts might begin with Washburn ('17). Fabre ('13) gives acute observations on various insects. Wheeler ('23) is a standard work on social behavior of insects. Jennings ('06) is the best work on the behavior of the protozoa. Kempf ('17) has an interesting study on the social behavior of apes. Wasmann in a number of papers gives perhaps the best discussion of the nature of animal instincts. His own work is concerned chiefly with ants and termites.

CHAPTER III

THE PREADOLESCENT'S PLAN OF LIFE

Why do boys differ so much? Why does one play ball from morning till night while another stays in the house poring over a book? Why does one spend his money on candy and another on movies? The obvious answer is that they do these things because they want to. Of course, this is an unsatisfactory answer; for it leaves unanswered the further question, "Why do they want to?" Yet it is not without interest to ask what the motives are that are uppermost in the minds of these lads, the ideals and ambitions that urge them on. It is only after answering this question that one is in a position to push the inquiry further, back to unconscious motives and subtle environmental factors. The motives and ideals of boys are a most interesting field of study.

Case 6. Take Joseph, for instance, a lad of 13, with a bit of the poet in his make-up. Gallic blood flows in his veins and his father's family has produced a couple of musicians of local prominence. Joseph himself has some musical ability. He is a large boy for 13; he enjoys vigorous good health, and two psychometric tests rate his intelligence as "very superior."

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What are the motives that loom large in Joseph's life? There is, first of all, the perfectly normal and healthy desire to have a good time. More of a boy's time is controlled by the play motive than by any other drive. During a week selected for intensive study, Joseph spent an average of seven hours and nine minutes a day in play, distributed as shown in Table II. This probably represents a minimum, for the week in question was a week in February, when school was in session.

TABLE II.—AVERAGE TIME PER DAY SPENT BY JOSEPH ON
VARIOUS FORMS OF PLAY

	h.	m.
Outdoor play	2	06
Indoor play	3	00
Reading	1	22
Recess at school		20
Scout activities		21
Total	7	09

If a week during pleasant weather had been selected for study, or a week when school was not in session, the time spent in play would have been found considerably larger. Dr. Cooper's ('22) estimate that the average boy has eight or nine hours a day of leisure time on his hands is probably quite conservative. An elaborate study made during the Cleveland Survey, as reported by Johnson ('16, pp. 46-48), showed the following distribution of play activities for 915 elementary school children who answered questionnaires about how they spent their time on a certain pleasant Saturday and Sunday in June:

THE GANG AGE

TABLE III

	h.	m.
Around school		33
Reading	1	46
Idling	1	49
On street	5	08
Movies	1	24
Park	1	57
Play	6	44

Total for two days 19 21

This is an average of about ten hours a day for spare-time activities.

Besides the play motive there is another drive which looms large in Joseph's life, even in his play. This is the drive towards self-assertion. Boys play not merely to have a good time, but to excel. Everyone has his place in the battle of life, be he a general or be he a private. The judgment of our fellows soon assigns us our place. Now, the game offers a convenient means of measuring oneself against one's fellows. The future leader and the future follower begin to show their respective qualities even on the sand lot baseball team. For this reason boys are apt to take their games rather seriously. One may notice this particularly in Joseph. He is a very sensitive boy and failure to make a coveted position on a team is, for him, a tragedy.

The drives mentioned thus far are self-regarding; but, of course, in a boy like Joseph there are other, more idealistic motives. He has decided to be a physician. This is partly due, perhaps, to the influence of a young doctor who has shown an interest in the boy. But genuinely altruistic motives have played the de-

termining part in his choice. It is refreshing to realize that your 13-year-old has, for the most part, other standards of value besides the usual one of dollars and cents. He may be impractical; but he is still haunted by the vision splendid. This ambition plays a real part in Joseph's present life. It makes him study harder, for instance.

The vocational ambitions of the preadolescent must not be taken too seriously. Fryer ('24) finds a correlation of only about 0.10 between the vocational ambitions of college students and the ambitions of these same individuals when they were in the grades. Joseph's ideals may change several times before he finally settles down to his life work; but he is eternally richer for his boyhood dreams.

Then of course moral ideals play their part (and it is not a small one) in the boy's life. It is unfortunate that these ideals are largely negative. Thus, his code is rather to avoid lying than to be honest, not to disobey his mother, rather than to take his share of the family work. Perhaps this is due to the way we adults put the thing up to children. We talk more of faults to be avoided than of virtues to be cultivated. Joseph's earliest moral ideas were gained from his mother. He remembers that she used to take him on her knees before he went to bed and teach him to obey and tell the truth. He went to a parochial school and he feels that the systematic moral instruction there has played the biggest part in the formation of his ideals. He gets little out of sermons at church because they are "over the boys' heads."

Case 7. In contrast to Joseph, Owen is a very practical type. Neither he nor any of his family show the cultural interests which appear in Joseph's background. I do not mean to imply by the adjective "practical" that Owen is a juvenile money-grabber. This is certainly not so. But he has the passion for handling *things* and for meeting practical situations, which the idealist has not.

Owen is the equal of the other boy in intelligence as psychometric tests show. Yet he is showing no interest in school and is doing work there far below his capacity. On the other hand he is, and always has been, passionately fond of machinery. A score of 98 in the Stenquist Assembling Test, Series I, made at the age of 15 speaks of very unusual mechanical ability.

This interest plays a big part in his recreation. He would rather watch a mechanic at work in a garage than Walter Johnson at work on the mound. I have known him to miss meal after meal if a neighbor would let him help fix a radio set or put new piston rings in a Ford. Besides this he plays the usual team games fairly well. He enjoys reading, Scout activities and an occasional movie.

Owen has more confidence in himself than has Joseph. Therefore he is not so sensitive to failure. A slight mishap does not shake his self-confidence as it might in the case of Joseph. He likes to assert himself, however, and is evidently proud of his mechanical ability.

Owen feels that his moral code is largely the result

of habit. He was raised in an atmosphere where certain ideals were taken for granted and in his circle of friends these same standards were accepted. His parents never employed corporal punishment. Owen feels that this fact has kept him more in sympathy with his parents than if they had whipped him.

The boy wants to be a machinist when he grows up. This would be unfortunate in a lad whose intelligence would easily carry him through college. An adult can easily see the undesirability of such a course. But the preadolescent forms his vocational ambitions on the basis of his likes and dislikes without a thought for the practical difficulties in the way. In the meantime this is having the very serious effect of making him lose interest in his high school studies.

In these two cases, and in all preadolescents, we find certain vaguely defined ideals or ambitions. As for the present, they all desire to have a good time, to maintain the respect and love of their fellows and their immediate family and to preserve a clear conscience. As for the future, they nearly all have some vocational ambition. Borrowing Dr. Moore's happy phrase, we may call the total of these conscious drives the preadolescent's "plan of life."

Now, it is to be expected that the preadolescent boy will have a different plan of life from the mature man. And such is the case. Some of the principal differences may be summed up under the following four heads.

(1) The boy and the man differ in the nature of their drives. Contrast the carefree lad who gives no thought to the morrow with the man burdened with business

and family cares. The adult must look ahead and plan how to make money and how to spend it, if he is to enjoy the comforts of life. The boy has these things supplied him. The adult enjoys recreation, but the normal man does not show the boy's keen absorption in play. The preadolescent boy does not share the man's interest in the other sex.

(2) The boy and man differ in the *explicitness* of their drives. It is characteristic of the mature mind to set up definite objectives. The boy does this much less; he is less analytical. The man resolves to attain to prominence in the community and does so by a carefully planned procedure. He joins societies which will bring him friends. He plays politics. Finally he gains the coveted office. The boy is less likely to formulate objectives. His plan of life is less conscious.

(3) The boy's drives are not *integrated* to the same extent as the adult's. As time goes on certain drives get the mastery in the personality of the adult. One has set his heart on making money, another on gaining power, another on helping some great cause. One drive may thus dominate the whole personality. Thus, beauty is the consuming passion of the poet; money, of the miser; souls, the passion of the missionary. This is much less likely to be the case in the boy. His tastes are catholic and he may be equally enthusiastic about becoming a cowboy, a pirate or a bank president.

(4) As a consequence of the above, the boy's drives lack *permanence* as compared with the adult's. One week baseball is the one thing worth living for. The next week it is a new bicycle. One day he is a saint,

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the next day, a sinner. Such cataclysmic changes are less likely to occur in the adult, if for no other reason, because habit and custom have so bound him in their meshes of routine.

The question of the origin of the various drives and ambitions is exceedingly complicated. Heredity plays some part. So does early environment. Numerous subtle unconscious factors, the influence of friends, the customs of the place—all have their part. Most of these factors will be treated in the chapters to follow. In this place we shall discuss briefly the one most direct influence, moral instruction. It is the most direct influence of all, though not necessarily the most effective. Without the knowledge necessary to distinguish right from wrong a person could hardly be moral. The converse is not necessarily true. Even with a fund of moral knowledge a person may not put his ideals in practice. Bronner ('14) has shown that the moral knowledge of a group of delinquent girls was not inferior to a control group of unselected girls.

The first source of moral knowledge is the home. The great advantage of moral training in the home is that it may be both theoretical and practical. Thus Joseph remembers that as a little boy he used to take pennies which he found about the house. One day his mother caught him and explained that this was wrong. He never did it afterwards. How much more effective such instruction is, given in a concrete situation, as compared with general instructions on honesty! Moral instruction given at home has the additional advantage that it may be enforced with punishments.

Even a slight punishment, given for a specific act, has a far deeper effect on the mind of a child than hours of moral generalities. A final advantage of home training is that it may be begun from the very earliest years and it gains a peculiar power because it comes from the persons whom the child loves best. Where this early moral instruction is lacking the child suffers a loss which can never quite be made up.

The Church is a second source of moral instruction. Looking at the question from a purely psychological point of view, I should say that one peculiar advantage of moral instruction received in Church is the solemnity of the presentation. The very fact of being in the church building induces an attitude of reverence and awe and impressions received under such circumstances have a special quality. Sermons may be effective if the needs of the juvenile congregation are kept in mind. The practice of Confession leads Catholic boys to try to gain insight into their faults and in special cases it is a source of moral instruction. The personal love of Christ is perhaps not as important a factor in the moral life of the preadolescent as in the older boy.

The school is a third agency for moral teaching. The establishment of the parochial school system shows how much importance Catholics place on this function of the school. The school is admirably adapted for systematic instruction. Moral teaching at home and even in church is likely to be more or less haphazard. But the school can plan and carry out a complete system of moral instruction. The weakness of the school has been that its moral instruction often remained theoret-

ical. Boys think in terms of concrete situations. General moral principles are apt to leave them unaltered.

Character is the sum of habits. A boy with a fine character is one who has many fine habits. Now, habits can only be formed by repeated free acts. A moral habit cannot be formed by force. Many a soldier, drilled to perfect obedience in the army, shows little respect for the authority of the law when he returns to civil life. He who obeys only through fear will obey only as long as he fears. But once let a man be convinced that obedience is a good thing, a thing to be striven for and he will obey freely and form a truly moral habit of obedience. So with the boy, if we force him to study by threatened punishment, he will study only as long as he fears the punishment. A habit of studying to avoid the rod is not a moral habit. But let him once realize that study is worth while, once let him study because he wants to and he is acting freely and forming moral habits. Moral habits and consequently character can only be formed when one acts freely. They can never be formed by force.

Now, if there is one part of a boy's day when he acts freely and consequently forms moral habits, it is his leisure time, his time of play. In school he does what he is told and not much more. At home his time is more or less supervised. But when he is out with his own friends, then he is truly himself. Then he acts freely. And the acts performed and habits acquired during play time are the very stuff of which character is made. Therefore it is of the utmost importance that the theoretical moral instruction given at home or in

school be carried over in some way into the boy's recreation. The parents must take an active interest in their boy's play. The school and church must interest themselves on a larger scale by means of organized recreation, clubs, playgrounds and so forth. When church, home and school take an active interest in the boy's recreation then, without conscious effort, the play itself may be made to acquire a moral tone. That is, it is carried on not without relation to the agencies of moral instruction. More and more we realize that recreation is essentially a moral problem.

It is only in recent years that the ideals of children and their moral ideals have been studied scientifically. The earliest scientific attack on the problem was by the questionnaire method. Barnes ('00), for example, studied 1400 children by means of a questionnaire, asking them whom they would most like to resemble. He found that the girls' ideals much more often than the boys' were in their own family. With the onset of adolescence the tendency to seek historical or public characters as ideals was much augmented. Boys rarely chose women as ideals. On the other hand, half the girls at eight and two-thirds of the girls at 18 chose men. Kline ('03) studied the ideals and ambitions of 2594 children and found the girls were more conservative than boys and more likely to give a reason for their choice. Professional and technical choices increased with age.

More recently much attention has been paid to the possibility of developing objective tests for character traits, comparable to our well-known intelligence tests.

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A good test of this sort would be extremely valuable; but it is also extremely difficult to construct. It is hard to measure moral qualities objectively and even after they have been measured they may change over night. It is different with intelligence. A moron never suddenly becomes a genius; but it is quite possible for a dishonest boy to reform and become thoroughly honest. Yet in spite of these difficulties, tests for moral traits will repay the work which has been given to them.

The most obvious way to measure a child's moral qualities is to have someone who knows the child well assign him ratings. Thus a teacher might rate all the boys in her class in regard to honesty, calling the boys who seemed to her the most honest "no. 1" and so forth; or she might assign each boy a score on a scale, say, of 1 to 10. Both methods, the method of relative position and the method of assigned scores have been used extensively. During the War still another system was used in the Army Personnel work, in rating officers. Five officers were selected as representing various degrees of specified qualities and the others were rated by comparison with these "key subjects."

Rugg ('21-'22) published a very severe criticism of the Army method which has considerably shaken our confidence in rating scales. It is now felt that the method has possibilities but only under certain conditions can it be made the basis of scientific work. These conditions are: (1) The rating should be the average of the ratings given by at least three judges. (2) The judges must know the subjects well. (3) The rating

must be made as objective as possible, for instance by using descriptive phrases. (4) The scores assigned by the different judges must be reduced to a common basis, for instance by having the judges indicate judgment graphically by placing a cross along an unbroken line and then transmuting these graphically expressed judgments into standard scores. Hayes and Patterson ('21) report reliabilities of .65 by this method. Freyd ('23 and '24) has also used it very successfully.

A more objective method of measuring character is furnished by exposing the subject to a definite situation and then observing his response. Thus Brown ('23 and '24) uses the number of minus and zero scores in a group intelligence examination to compute what he calls a "caution index" which he finds is half as good as an intelligence score for predicting success in scholarship. Ream ('22) reports a test in which the subject's knowledge of a number of (1) socially acceptable items, (2) questionable items and (3) sport items is measured. The subjects whose knowledge of the acceptable items is high in proportion to their knowledge of the questionable items are presumed to have healthier interests. Hart ('23) has a test of social attitudes and interests which is based on a somewhat similar principle. Moore and Gilliland ('21) measure aggressiveness by a number of objective tests such as a test of control of eye movements or of the tendency to distraction and Filter tests self-assurance and speed of decision. As long ago as 1912 Fernald had proposed a test of "spunk" by measuring the time a subject would stand on one foot.

The Downey Will-Temperament Tests have received considerable publicity. These tests which are published in both individual and group form are largely based on handwriting. Thus motor inhibition is measured by having the subject trace a scroll as slowly as possible. Flexibility is measured by the ability to disguise one's handwriting. Thus far the Downey tests have not given very satisfactory results as studied by Ruch ('21), Ruch and Del Manzo ('23), Meier ('23), Herskovits ('24) and others. But Poffenberger and Carpenter ('24) find that the personality traits revealed by the test help to account for the low correlations between scholarship and intelligence test scores. The consensus of opinion seems to be that though the test is very imperfect at present it has encouraging possibilities.

Voelker ('21) and Cady ('23) have developed what is probably the most objective and the most promising approach to the question of character measurement known at present. Voelker devised the tests and used them in his study of trustworthiness with a small group. Cady took the same tests and applied them to a much larger group with much better controls and statistical treatment. The "squares and circles" test will serve as an example of their method. In this test the subject is given a card with five small circles on it. He is told to close his eyes and make a mark in each of the circles. The feat is practically impossible of accomplishment. Therefore when the subject has scored himself if he claims to have accomplished the task successfully he is scored zero. Cady, who extended the

same test to squares and mazes, finds a reliability of .744.

The above mentioned tests were designed to measure the subject's reactions to controlled situations thus giving a clue to his character. If we attempt to measure moral knowledge instead of character the problem becomes much simpler. Yet there are extraordinarily few good tests of moral knowledge. Kohs ('22) has an ethical discrimination test based on the usual intelligence test technique. Hartshorne ('19) presents the child with a situation in writing and the child has to rank various responses. The most elaborate study of children's moral ideas is McGrath's ('23) monograph. Using both group tests and, for the younger children, individual tests, this investigator studied the moral concepts of about 4000 children. The results are collected by ages and the different responses of children of different ages are extremely interesting. On the basis of this work Dr. McGrath gives a tentative moral information test which follows an outline somewhat similar to the Binet scale. It is to be noted that no attempt was made to determine either the validity or reliability of the tests used.

SUMMARY. Aside from the subtler unconscious factors every boy has a number of objectives which greatly influence his conduct. As for the future, most boys have some more or less definite ambitions. As for the present, they strive to have a good time, to retain the respect and love of family and friends and to observe their moral code. The sum of these various ideals makes the boy's "plan of life." Boys differ in

the nature, explicitness, integration and permanence of their drives. The home, the church and the school are the chief agencies which are responsible for the child's moral education. In this task they must not overlook the importance of play. Our knowledge of the drives and moral attitudes of children is dependent on the development of good tests. Thus far the problem of devising satisfactory tests of character traits is largely unsolved, but encouraging and increasingly rapid progress is being made. Tests of moral knowledge as distinct from tests of moral traits offer no such difficulties and should be developed in greater number.

BIBLIOGRAPHY

There is very little material available on the ideals of children. The studies mentioned in the text and some others are summarized in Hall ('07). Published character studies of children are nearly always concerned with the psychopathic or delinquent. These will be summarized in a later chapter.

Cooper ('22) gives an excellent summary of the published material on the spare time of the child. Various recreation surveys are worth consulting. The most thorough of these was made in connection with the Cleveland survey; see Bonser ('18), Johnson ('16) and Gillin ('18). The Playground and Recreation Association of America is responsible for a number of surveys. Haynes ('12) is typical.

Cady ('22) and Symonds ('24) review the work done on the objective measurement of character. Hollingworth ('22) handles the subject from the viewpoint of personnel management in industry. Terman ('18) reviews the Army methods. Cleeton and Knight ('24) give the most thorough refutation of the theory that character may be judged from physical traits.

CHAPTER IV

THE UNSEEN SIDE OF MENTAL LIFE

One morning Jack was out of school and the rumor had it that he was sick. That afternoon I was going by his house, so I dropped in to see how he was. His mother met me at the door and explained that although he had been apparently a very sick boy that morning, he had recovered quite suddenly after dinner and that just now he was on a vacant lot playing ball. This incident is common enough and it provokes a knowing smile from the adult. One suspects that if Jack was sick at all he was merely sick of school.

Yet this superficial view is not quite just. Jack had no intention of malingering. He really thought he was sick. If he had written down his introspection it would have been something like this:

Eight A.M. "I am really dreadfully sick. I hate to miss school; but to venture out under the circumstances would be little short of suicidal."

Two P.M. "I feel remarkably better. Though prudence might dictate an afternoon of convalescence in the house; yet my loyalty to my team requires my presence on the diamond this afternoon. Very well, I will be a martyr to duty."

But Jack's recovery has been too sudden. We rather

suspect that in the back of his head something like this has been going on.

Eight A.M. "I loathe the idea of going to school today; but I can't make mother see it my way. To play truant goes against my principles. But if *only* I were sick I could stay home honorably. Therefore, I shall be sick."

Two P.M. "It's too late to go to school now, so I might as well recover; only I mustn't recover too quickly while I am still within sight of the house."

As a matter of fact both of these views are correct. The first really represents Jack's conscious view of the case. He does not suspect the cause of his sickness. Yet the other view is true, also. Jack is deceiving, but not consciously. The deception is *unconscious*, "a mental mechanism" in the language of the psychiatrist. Jack has not only deceived his mother. He has completely deceived himself.

Such mental mechanisms are not confined to 14-year-old boys who want to stay home from school. The student who has a "nervous breakdown" when he feels he is falling behind in his studies, the woman whose "nerves are shattered" and is consequently sent to a sanitarium where she can live in comfort, the soldier in the trenches who suddenly gets "shell-shocked," all are dodging an unpleasant situation in essentially the same way as Jack. Dr. Moore speaking of his experience with shell-shocked men in France says: "It was interesting to watch the rapid restoration to health of . . . a number of grumbling, discontented, neurasthenic officers when the armistice was signed.

Before this happy event, they felt that they were fit only for a base hospital—afterwards they manifested the most surprising zeal to get back to their organizations" ('24, p. 227). Evidently older persons than Jack can have sudden recoveries when it is for their advantage.

All these illogical adjustments are common enough. We recognize them every day in the conduct of our friends and, if we are frank enough, in our own conduct as well. Generally they are not very serious. The normal person gets along well enough in spite of them. But in certain cases they may be serious. All insanity except that due to physical lesions of the nervous system is due to just such mechanisms. Moreover the oddities of adults are due to them also. People are not born queer. They become queer through unconscious mechanisms such as I have described. It is extremely important for those who have to do with children to realize the nature of these processes. For a little insight during childhood may solve problems which would have led to serious handicaps in later life.

It is not always easy to uncover the unconscious motives of the child. No definite rules can be given to guide one. In general, it may be said that there are two ways of attacking the problem, one direct and one indirect. In the former the examiner proceeds by direct questioning to find the child's difficulties. In the latter, certain technical methods are employed, such as free association or dream analysis.

The direct method has the advantage of being more economical of time. Healy, for instance, states ('17)

that he has never found it necessary to use any other method. Working with delinquent children, he goes straight to the point, asking the child to give his reasons for the delinquency and then by skillful questioning he leads the child to discover the hidden motives of his conduct. This direct method can be very effective in the hands of a skilled examiner. The chief elements of success are:

(1) Whatever happens the examiner must not censure the child. Censure has its place, no doubt, but its place is not here. If the child feels he is going to be scolded he will not talk freely. The examiner must learn to be "unshockable" or he will not succeed.

(2) The child craves understanding, not sympathy but understanding. If the adult can convince the child that he sees the latter's point of view, the child will be glad to talk over his difficulties. What the child cannot stand is to bare his difficulties to an older person who will refuse to take them seriously. To brush aside a boy's troubles with a laugh is the worst insult that can be given him.

(3) The patience of the older person must be unlimited. He must have the gift of listening. Children will not bring their difficulties to the surface at once.

(4) Tactful questioning is necessary. Often children are anxious to bring up certain difficulties but have not the courage to do so of their own accord. The adult who can sense the situation and ask the right questions will be a great help to the children under his charge.

While such direct methods are sufficient in most cases, more technical methods are necessary in some

cases where more thorough work is called for. The principle underlying such methods is what is known as symbolism. A person puts an unpleasant situation out of his mind and it does not reappear in consciousness as such. But it may appear through some associated idea, its symbol. For example, suppose a certain man who wears a Van Dyke beard has insulted me. The incident is humiliating and painful, so I put it out of my head. But I may take a sudden dislike to all men with Van Dyke beards. I do not know why. The real reason, of course, is, that that particular sort of beard is a symbol of the man who has insulted me. Such symbolism underlies many of our likes and dislikes.

This symbolism has been found to be particularly active during dreams, both the real dreams of sleep and the day dreams or fantasies of waking life. However trivial such dreams may seem they often (psychoanalysts would say "always") concern the subconscious conflicts of the dreamer. Therefore one of the most useful ways of getting at the hidden motives and conflicts of a person is by analyzing his dreams. By the analysis of a dream we mean the discovery of its hidden meaning. The method employed is generally free association in which the ideas of the dream are taken one by one and the subject tells what ideas these suggest to him. Such free association often uncovers the real idea for which the dream idea is a symbol. This is not the place to discuss the validity of the method nor all its theoretical implications. Suffice it to say that this technique has been found helpful by a great

many workers. It will be sufficient to illustrate it by two cases. The first case is chosen for the sake of simplicity. It is relatively trivial and easy to understand. The second case is chosen to illustrate the more complex forms which dream symbolism may take.

Case 8. Bernard, an intelligent and very normal boy of 14, reported that he was bothered very much by dreams, which constantly recurred. He added spontaneously that he had them always on Sunday nights after he had eaten a lot of meat. Here are the dreams in his own words.

Dream 1. "I dream of a big coil of rope with a knot in it. First the knot is small, then it gets big and comes up to my face. The knot seems to be the face of a man smiling. I am in the corner of the yard where I can't get out. It comes right up to my face and I wake up."

Dream 2. "I dream I'm at the end of our alley where niggers are always around. A Turk with a curved sword follows me up the alley. The alley is made of linoleum. I keep slipping. He gains on me. Just as he is going to hit me I wake up."

These dreams were analyzed by method of free association. Bernard was told to think of the word "rope" with his eyes closed. He was then to report any ideas that came into his head or any scenes that came up before his imagination. He proceeded: •

"*Rope* . . . the far corner of my yard . . . dead dogs buried there . . . clothes-lines . . . a dead rabbit we buried there when I was six . . . I saw

an ice man get hit on the head and knocked out . . . an old man, a cripple, who walked funny, used to come by. We were scared of him—used to run in our yards. . . . Used to watch things going on in alley. . . .”

Next the stimulus “knot” was suggested.

“*Knot* . . . a man’s face . . . the man in the ice wagon . . . he was a dopey looking guy . . . used to give us hunks of ice to eat. . . . We never went in alley—afraid niggers would hit *us* over head. He didn’t look very nice lying on the ground in the alley. . . . I was six or seven.”

The unconscious background of the dream now began to be apparent. When he was a young child Bernard had had what was for him a harrowing experience. He had seen an ice man knocked unconscious in an accident in the alley behind his back yard. The sight of the man lying in a pool of blood haunted his young imagination. He had forced the incident out of his conscious life but it kept reappearing in his dream life. But when it did reappear, it came in disguise. Instead of dreaming of the injured ice man he dreamed of the coil of rope which he had seen in the back yard at the time of the accident.

The other dream had a very similar explanation. Starting with the word “alley” and then with the word “linoleum” the following associations appeared:

“*Alley* . . . fights at the end of the alley . . . someone getting hurt . . . the day the old huckster broke a man’s windshield . . . chauffeur thought it was *us* . . . He ran up the alley and grabbed me.

Found it was the huckster . . . Jew huckster, part nigger and part Jew . . . like Bolshevik . . . long beard . . . looked like he wouldn't think nothing of killing anybody . . . the horse he never took care of. . . . He used to run us with rotten tomatoes."

"*Linoleum* . . . kitchen floor . . . wet . . . slip on it . . . saw grandmother break her arm on it . . . saw dog slip on it . . . made sliding boards of old linoleum."

Here too we have a collection of memories which, although they do not seem terrible to an adult or even to Bernard at 14, yet must have been acutely terrifying to the small boy he was when he experienced them. The image of the foreign huckster comes back very vividly in the associations. The dream is a rehash of all these frightful sensations.

One point remained unexplained. Why did Bernard dream these dreams on Sunday night after eating meat? Asked this question, he spontaneously added that the dream came after eating *pork*. He was asked to associate with this word.

"*Pork* . . . a lot of hogs slaughtered once . . . we were in Chicago . . . went into slaughter house . . . I remember a man with a white apron and a long knife . . . he stuck it in throat of the pig . . . I see the pig lying in a bunch of blood . . . dog that the ambulance ran over on Seventh Street . . . baby thrown on sidewalk . . . lady in hysterics."

The connection was now clear. When Bernard had pork for supper it aroused unconscious memories of the slaughter house and its terrifying scenes. When he

went to sleep a perfect orgy of terrifying memories flocked into his mind, in a form strangely distorted by symbolism as is usual in dreams.

Psychoanalysts will reject this interpretation as superficial. According to the doctrines of this school a dream always expresses a wish, and is always concerned with the deepest problems of life. Without reviewing the details of the controversy the writer submits that he finds more plausible the view of the growing school of analysts who would not so limit the significance of the dream. Just as our waking consciousness is not restricted to wishes, but includes sorrows, scruples, joys and so forth, some important and some trivial, so the dream may represent any one of a vast variety of things. One proof of our interpretation of Bernard's dream was that the boy himself found it satisfying and that after it had been explained to him he was never bothered with the troublesome dreams again.

Bernard's dream was trivial as far as his present life is concerned and it did not influence his behavior except to cause the unpleasant experience of the nightmare. The subject matter of the dream was not important enough to result in any abnormalities of conduct. Now we will take the instance of a dream which concerned itself with the deepest problems of a boy's life, an example of a different sort of dream.

Case 9. Anton is a 14-year-old boy with "very superior intelligence" according to the Stanford Revision. For some time past Anton had been associated with a number of boys of questionable reputation. He had

since given them up and his constant companions were a different group of very fine boys. He was very much in earnest about this change in his life when he reported the following dream:

"There was a revolution like, across the street in the vacant lot. One side was in the vacant lot and one on X Street. I was with the side in the vacant lot . . . fighting and all that. I came down from the side I was on and walked up X Street and joined the side that was on X Street. I wondered what the other side would think to see me fighting with this side."

Anton was told to close his eyes and visualize the dream scene and see what associations it yielded. After a few seconds he reported. "A couple of months ago, some old niggers across in the vacant lot had a stone battle. I was thinking about it before I went to bed. . . . The funny part was, I was on the niggers' side in the dream."

Why should Anton dream that he was fighting on the side of the negroes? The word "nigger" brought the following associations: "Low, ornery guys . . . working on street . . . trash men . . . ash men . . . sewer cleaners, street cleaners . . ." Evidently the colored race did not stand high in Anton's estimation. But why should he have classed himself with them in the dream? Like a flash the answer occurred to him. The negroes represented the former questionable companions with whom he had associated. The meaning of the whole dream became clear. He felt that formerly he had kept company with boys of low moral standards, symbolized as "niggers." He had left

them and joined the opposite side, that is the gang of much finer boys who were now his constant companions. Then he naïvely wondered what his former companions would think of him. It is interesting to note that in reporting the dream he called it a "revolution, like" rather than a "fight" or a "war" or a "battle." It did indeed represent the revolution which had taken place in his life.

The danger of the method of dream analysis evidently is that it is too easily open to arbitrary interpretations. Two different analysts would seldom get exactly the same results with the same material. There is no way of checking one's results except that if the insight gained in this way proves helpful in solving a person's difficulties it is to be presumed that the insight itself was sound. But this is not infallible. On the whole, the best way for an adult to approach the solution of the child's difficulties is by the direct method.

It is in order here to call attention to the responsibilities of the recreational worker in solving the problems of the boy's life. The obviously psychopathic child is taken to a psychiatric clinic if luckily there is one in the community and there he receives the treatment he needs. But the psychopath is not the only one who needs help. All boys have some difficulties, some minor abnormalities, some little oddities which need insight to correct. Who will concern himself with these? The boy's parents have a strategic position. They can do almost anything with the child if they know how. But it is too much to expect insight

on the part of most parents. It is surprising to see how few have the least knowledge of their boy's problems. The school teacher can do much. She understands children and can observe day after day. But there is likely to be a certain repugnance towards telling one's difficulties to one who must wield the rod of authority. A clergyman can do wonders if he has the time to work intensively with individual cases; but he usually hasn't. But the recreational worker, Scoutmaster, playground leader or camp director has a unique position. A parent is loved far more, a teacher is respected more, a clergyman is revered more, but the boy instinctively looks for understanding to the man who shares his games, uses his own language and has already proved his ability to understand in a thousand minor ways. To my mind this is the greatest responsibility of the recreational leader.

SUMMARY. An extremely important fraction of all our acts are performed for unconscious reasons. The real motive for action is not that which appears on the surface. We not only deceive others in this way; much more often we deceive ourselves. The basis for such conduct is some difficulty to which we could not adjust ourselves. To help a person one must gain some idea of that person's unconscious processes. This can usually be done by direct questioning by which the subject is induced to recall forgotten difficulties which he has repressed. For more thorough work the technical methods of dream analysis and free association present themselves. It is a consummation devoutly to be wished for that recreational workers will equip themselves to

gain insight into the problems of the children with whom they work.

BIBLIOGRAPHY

The literature on clinical psychology and mental analysis is rapidly growing. Many good books are available. Morgan ('24) is perhaps as good a popular introduction to the subject as there is. It is concerned principally with minor abnormalities of school children. Healy ('17) gives a good description of working methods. Mateer ('24) has written well about the operation of the modern mental clinic. Thom ('24) is excellent for the light which clinical psychology throws on the young child. For those who wish to get a deeper insight into the psychoanalytic movement Moore ('24), Hinkle ('23) and Van der Hoop ('23) are good introductions. But to gain a thorough knowledge of the subject one must, of course, go back to the founders of the movement, to Freud, Jung, and Adler, and read their classic works. Kempf ('20) treats in considerable detail the application of this method to the major psychoses. Buckley ('20) may be read as a representative of the more conservative school of psychiatry. The Judge Baker Foundation case studies furnish very detailed personality studies of delinquent or semi-delinquent children.

CHAPTER V

MENTAL MECHANISMS

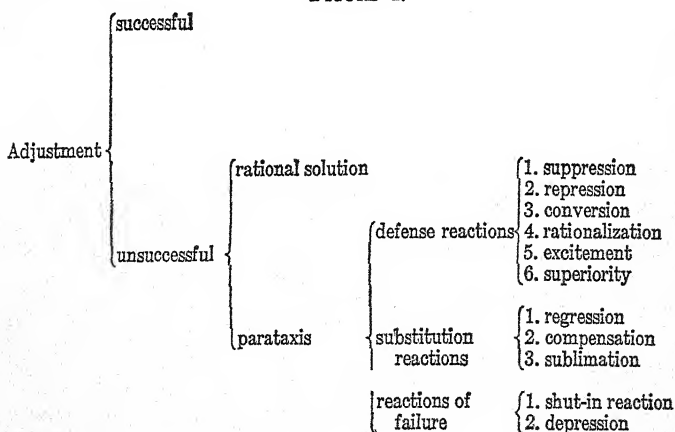
Most peculiarities are caused by difficulties which have not been met successfully. As long as life is all sunshine the individual will probably act in a normal, rational way. But sooner or later in every human life difficulties arise. Sometimes these can be met successfully and then life goes on happily as before. But there are sure to be some difficulties which cannot be met successfully, the death of a loved one, the wasting agony of an incurable disease, or even the numberless minor annoyances of everyday life. These sorrows which must be borne and cannot be overcome try the spirit of man. The conduct of a person in the face of keen disappointment reveals the manner of man he is.

Of course, the rational, as well as the manly thing to do in such circumstances is to face the situation frankly and to make the best of it. This is known as a *rational solution.* Unfortunately most of us have not the courage to find rational solutions to all our difficulties. Instead of facing the unpleasant situation we put it out of our mind, or if we face it at all we distort it. Not only do we dislike to dwell on the unpleasant idea itself but we avoid anything which would remind us of it. Thus it comes about that a whole group of ideas, tinged with a strongly distasteful

emotional tone, is rejected from consciousness. Such a constellation of ideas is spoken of technically as a *complex*.

The complex is apt to cause certain abnormalities of conduct. The preceding chapter has already suggested this by pointing out the influence of unconscious ideas on conscious life. Dr. Moore ('21 and '24) suggests the term *parataxis* for these bizarre adjustments which are dictated not by reason but by the influence of painful complexes. The accompanying table gives a tentative classification of the parataxes.

FIGURE 4.



The reader must be warned that all such classifications are rather schematic. In real life the hard and fast divisions do not exist. Rather, in each case there is a complication of various parataxes some of which are extremely difficult to classify. But a scheme such

as this is useful in the description of cases. The reader must also be aware that there is little uniformity of use in the terms employed for the various conditions. Different writers vary exceedingly in their use of terms.

When one refuses to face a difficulty in a rational way, three things may happen. (1) He may refuse to admit that there has been any difficulty or that he has failed to overcome it. This is the *defense reaction*. (2) While realizing more or less clearly that he has failed he may attempt to make up for this failure by feverishly pursuing some other object. This is a *substitution reaction*. (3) He may admit that he has failed and give himself up to abnormal brooding over his failure. This may be called the *reaction of failure*. It must be understood that these parataxes differ from rational solutions in degree rather than in kind. Thus, when one has failed in one venture it is perfectly rational to resolve to succeed in something else instead. The same thing occurs in the parataxis of substitution. The difference lies in the way it is done. In the parataxis the person acts without knowing why and there always results a certain quality of queerness which stamps the course of action as a parataxis. On the other hand the parataxes differ from the major psychoses (insanities) because the former are simple, mild conditions which cannot upset the whole life of the individual. In the psychotic the abnormalities of conduct are so systematized and have become so much a part of the individual that they definitely mark him off from the rest of human society.

1. *Defense Reactions*. As has already been stated,

defense reactions are those which prevent one from realizing the truth of the situation. The easiest way to hide the truth from oneself is simply to forget it. Where the forgetting is only partial it is called *suppression*. Where one succeeds in forgetting the unpleasant facts completely the mechanism is called *repression*. Or one may develop some physical symptom. Thus the boy who suddenly becomes sick and has to stay home from school is concealing from himself his real reason for staying home. This is called *conversion*. Perhaps the most popular defense is *rationalization*, by which the unpleasant facts are explained away. The defeated player who blames the referee is an example. By giving oneself over to frenzied *excitement* the unpleasant facts may be excluded from the mind. Or one may take refuge in an exalted sense of *superiority*. Thus the capitalist who underpays his laborers may perform spectacular works of philanthropy in an effort to distract his own as well as the public's attention from his injustice.

2. *Substitution Reactions*. When a person has failed in the attainment of one object another may be substituted for it. This new object may be either one on a higher level on the moral scale (*sublimation*) or on the same level (*compensation*) or a lower level (*regression*). Thus a young man who has been disappointed in love may give himself up to serving some great cause, or fall in love with another girl or give himself up to a life of unrestrained indulgence. What distinguishes the parataxes of substitution from similar rational adjustments is the fact that in the parataxes

the new object is not sought for its own sake but for some real or fancied resemblance to the lost object. Thus it has been found that certain neurotic individuals are apt to choose a wife who reminds them of their mother, not because the girl herself attracts them but because they are still so much in love with the mother that they cannot give her up and consequently find in the girl a symbol of the mother. Needless to say, such marriages lead to unhappy consequences. A parataxis in which the object sought is one thus connected with one's childhood is the typical regression.

3. *Failure*. In the reaction of *depression*, the individual gives himself up to prolonged and abnormal sadness. Of course a certain amount of sorrow is perfectly natural; but in the typical depressive case the subject is so demonstrative in his grief that one suspects that he is rather trying to draw sympathy to himself than merely showing the natural sorrow of the situation. It is often remarked that certain gloomy individuals seem to take a positive delight in sorrow. To be deprived of a perfectly good grievance over which they could grumble and complain would be a calamity to them.

Sometimes when one has failed, he withdraws from the world, seldom speaking, taking little interest in what is going on and creating for himself an ideal world of the imagination where things can be regulated to suit him. This is the *shut-in reaction*.

As has been remarked already, the parataxes seldom occur in real life with the same clearness as the definition might lead one to suspect. To understand what they are like in real life, the four following cases are

presented. Of these four boys certainly not more than one could be considered queer. The parataxes are lesser abnormalities of which no one is quite free. They are the little oddities which must be understood by all who have to do with children if the children are to be helped.

Case 10. Alan is a healthy boy of 15. He is very well-mannered and more thoughtful of others than boys of his age are apt to be. He is very popular with his companions and with grown-ups. One notices his poise and ease of manner. Psychometric tests reveal distinctly superior and well-rounded ability with a tendency to carelessness. He shows very unusual mechanical ability.

Alan lives with his mother, two older brothers and a younger sister in a single house situated in a pleasant neighborhood and owned by the family. Both older brothers hold good positions in a bank. They are kind and considerate towards the boy, but do not spend much time with him. The younger sister is a vivacious little lass of three who is the pet of the family. The mother is an excellent housekeeper but she is not firm with Alan. The father who was killed in an auto accident two years previously was a great chum of Alan, and the mother got into the habit of leaving the discipline of the boys to her husband.

Alan was a quiet and easily managed baby. He was put in school at six and seemed to like it. His teachers were very pleased with his work. After doing well in the first four grades he seemed to lose interest in his work in the fifth grade. He began to go around with

a gang of boys of his own age. These boys were never guilty of serious delinquency, but teachers found them troublesome, and probably this helped lessen Alan's interest in his work. He seemed definitely hostile towards his fifth grade teacher. From this time on the boy did poorly in school. Now, in the freshman class of a large high school, he is barely getting passing marks while his intelligence should put him among the leaders of the class. He has a very critical attitude towards his teachers. He is anxious to leave school and go to work. He frequently complains of feeling sick and his mother lets him stay home from school. He refused to have a doctor. When finally his mother insisted on having a doctor examine him, the report was that the lad was in perfect health.

During several long interviews with the writer, Alan often spoke of his desire to go to work. Asked his reason, he replied that he felt it was his duty to support the family. He spoke with emotion of his widowed mother and of his filial love towards her. When it was suggested that his older brothers seemed quite capable of supporting the family, he replied rather indignantly that both of them were keeping company and would probably soon be married and that in consequence he must himself be the real mainstay of the family. When it was pointed out to him that the best way for him to help the family in the long run was to prepare himself for a good position by a good education and that this was undoubtedly what would please his mother most, he answered "I can't see it that way" and went on to tell how he felt that he must take his

father's place towards his younger sister, adding "I'm her godfather and I *have* to take care of her." Alan's great ambition was to be an electrician.

It seemed quite evident, even before the study of the case was completed, that Alan's dislike for school was the fundamental difficulty. He was a proud and sensitive boy and could not bear to do so poorly year after year. It hurt him very much. The proper way to meet this difficulty, of course, would have been to study harder; but Alan could not bring himself to do this, partly because he was discouraged and partly because it required too much effort. Instead of facing the difficulty, he tried to get around it in various ways. (1) Instead of tackling the prosaic and unromantic duties of school life, he substituted high-sounding ideals about helping his widowed and ageing mother. This is *sublimation*. (2) Instead of admitting that he did not have the courage to fight his way back to the top of the class by hard study, he explained to himself that he was sacrificing himself for the sake of the family. This is *rationalization*. (3) To any criticism of his motives, however slight the hint, he replied by becoming indignant in his assertion of the singleness of his intention. This is the mechanism of *superiority*. (4) His frequent spells of sickness suggest another way of avoiding the unpleasant school task. It is significant that he always refused to see the doctor. These physical manifestations, which he undoubtedly regarded as real, are included under the head of *conversion*.

The prognosis in such a case is not bright as long as

the boy cannot be given any insight into his condition. As long as he continues to deceive himself, he will never develop maximum efficiency. The writer must admit failure in this case. No amount of reasoning, persuasion, appeal or entreaty seemed to change his fixed view of himself.

Case 11. Wallace was one of a family of four, consisting of himself, father, mother and brother. The father was a lawyer, successful on a moderate scale, respected in his community but not taking any great part in the home life. The mother was a very sensitive, diffident woman who suffered keenly from real or imagined slights. She was very gifted musically.

The boy was a healthy, chubby baby, weighing ten pounds at birth. He had no serious diseases. At present, at the age of 13, a physical examination is entirely negative except for defective eyesight which presumably accounts for occasional headaches. He eats little, is very fond of sweets but never touches tea or coffee. He smoked a little when younger.

Wallace himself bore a great resemblance to his mother. Like her, he was reserved and shy, sensitive and musical. He had a fine soprano voice and occasionally appeared in public. His intelligence was rated "superior." It will be noted that most of the boys mentioned here are above the average intellectually. The duller half of the community is not so likely to develop parataxes, or if they do, they cannot explain them to the examiner. But intelligent boys like Wallace are apt to be introspective and to brood over difficulties.

Wallace plays with the other boys at school, but spends noticeably less time at play than the average boy of his age. He is popular with his fellows. He has one close friend, a very normal boy of his own age. His teacher reports that he often seems lost in day-dreams and sometimes "the saddest expression" comes over him. His mother reports him extremely sympathetic and thoughtful, helpful around the house and "as good as a nurse" in sickness.

It was hard to induce the boy to discuss his troubles. Only at one interview did he throw aside his reserve and go into details. He spoke then with a great deal of emotion about the things he had to suffer. The thing that pained him most was the persecution that the other boys in the school systematically waged against him. He said that the boys deliberately plagued him and that he was powerless to fight back against so many. He was also pained and humiliated at his family. His father was a failure in life. They were poor and his house was not fit to live in. His brother exercised the greatest ingenuity in torturing him. He felt discouraged and deliberately withdrew from the play of his fellows. Reading was his greatest consolation.

To my personal knowledge these things which pained Wallace so much were certainly not true. The other boys did not persecute him, neither was the social status of his family below that of the average in the neighborhood. It was, on the contrary, distinctly superior. The boy was under a fixed delusion about these things. The persecution of his classmates was

pure imagination. Healthy boys are rough in play. They push and pull each other on the playground; but whereas most boys take this as a matter of course, Wallace imagined that he was being deliberately teased. As a matter of fact he was universally liked, though not understood by the other boys. His ideas about the social status of his family were, as he himself admitted, gained from his mother.

All this was explained to Wallace and he did gain some insight into his condition. He afterwards reported that this helped him. He resolved to spend more time in play and less time brooding by himself.

Undoubtedly the prime factor in the case was the neurotic mother. The boy was extremely devoted to her, and unconsciously imitated her own views of life. The son, like the mother, became hypersensitive and withdrew into the world of his own imaginings. When little difficulties arose in his school life, instead of facing them he preferred to withdraw still more. This is the typical *shut-in reaction*. The individual has failed to cope with reality, so he withdraws into a new world created in his own fancy where he can regulate things to suit himself.

Case 12. Kenneth, 14, reported a very long dream, of which the most significant part was as follows. He was at boarding school and was leaving with some athletic team to play some sort of a game. They were all at the station ready to take the train when suddenly another boy came up. There was not room to take all. Someone had to be left behind, so they left Kenneth behind and took the new boy. He turned about

discouraged and returned to the school. As a matter of fact, Kenneth had failed rather ignominiously to make a school team. This was probably the immediate background of the dream. But it soon became apparent that the difficulty was deeper than this. He was a sensitive boy, anxious to form friends, yet he felt that he was ineffective socially. He could make friends but not retain them. This was true. The other boys found Kenneth rather difficult to get along with. Sometimes he was considerate and ingratiating. Sometimes he was haughty and captious. He was hard to understand. The boy himself realized this at least vaguely and felt discouraged.

He was able to say with considerable certainty just when this lack of confidence in himself first appeared. Until three years ago, he stated, he had had no difficulty in making contacts. But from that time on he suffered from a peculiar lack of confidence which he could not explain.

The next point was to determine what had happened at that particular time to affect the boy so much. After some hesitation he admitted that he had been intimate at that time with a certain thoroughly bad boy who used to speak to Kenneth of immoral things. This guilty knowledge raised doubts and questions in his mind. He brooded over it. There was no older person from whom he dared to seek advice. He became discouraged and felt inferior to the other boys, and he gradually lost confidence in himself. Gradually he managed to put the troublesome thoughts out of his mind, but the feeling of inferiority remained.

This is a typical *inferiority complex*. The troublesome ideas had been almost forgotten (*suppression*) but even after they had been forgotten they contributed to the feeling of inferiority. After all this was explained to Kenneth and the whole matter discussed with him, he stated that he felt much better and a distinct improvement in his social adjustments was noted.

Case 13. Winthrop, a bright boy of 10, is the second of four children. His early life was passed amid wretched surroundings, in a home where father and mother were constantly quarrelling. When the boy was five, the parents separated and he was sent to some distant relatives, a young couple, with whom he still lives. He is the only child in the home and his foster parents are very devoted to him. They are very intelligent and coöperative.

The foster parents report that Winthrop has never been quite normal. Sent up to wash, he may destroy things in the bathroom. When rebuked, he retorts "You're not my father and never will be," and "If you had a better looking face I'd like you." His teacher calls him dreamy. He likes carpentry and radio. He has a set of tools, but will destroy the furniture if left alone. He spent money which he was told to put in the collection at church and he explained: "Satan said 'Don't put it in,' and I didn't." He is a great doubter and wants proof of everything. He likes to argue, seldom admits he is wrong, and will even say the calendar is wrong rather than give in. He harbors grudges, is affectionate, sensitive and easily led by

other children. He is anxious to make good appearance. Plays sometimes with children of his own age; but sometimes he prefers to go off and play by himself. He used to make faces in school to attract attention. He talks, cries or walks in his sleep.

After several long interviews, Winthrop admitted that he was obsessed with bad thoughts. His most constant companion, one Otto, a boy about a year older than he, often spoke to him about these things, as did also Otto's younger brother. Winthrop seemed to be alternately attracted and repelled by these two boys. He would break away from them and resolve to have nothing more to do with them, and then the old fascination would bring them together again. The bad thoughts were constantly in his mind. "That's about all that's in my mind, the bad things they tell me and the bad things they do. I don't even want to think about them." He spoke of the difficulty of restraining these vivid imaginings. "I can't help thinking about them. It's like when you take castor oil . . . If I think of it I can taste it." He had never discussed these difficulties with any adult. Unfortunately, just after he made these disclosures, the boy moved away.

This case had many complications. Undoubtedly the boy's wretched early environment had a permanent effect on his character. But as far as the present difficulties are concerned, it is interesting to note, as in Kenneth's case, the effect of guilty knowledge which can be shared with no older person. Here again, it produced a sense of inferiority and lack of social adjustment. In Winthrop's case, also, one can notice the

strained excitement. The boy does all sorts of queer things to divert himself from his troubles. He tries to forget his difficulties through the mechanism of *excitement*.

The consideration of these cases and of many others like them leads to certain practical conclusions, of which the following are the most important:

(1) To learn to face difficulties squarely is a most essential part of a child's education. The child who fails to learn this will grow accustomed to self deception which may lead to serious mental disorders or, at the very least, to oddities of conduct and much suffering. The too indulgent parent who helps the child in every difficulty and coddles it whenever it is in a bad humor, is unwittingly teaching it to be dependent and to play for sympathy. Such a parent loves not wisely but too well. A more prudent parent will allow the child to meet and overcome minor difficulties, thus creating a spirit of independence which will be invaluable in later life. Not only the parent, but the recreational worker and teacher must watch these things. The term *mental hygiene* is now often used for the systematic effort to prevent or destroy undesirable behavior trends which may arise through such mental processes as we have been describing.

(2) Repellent as it may seem, the adult must realize that he has a very grave responsibility to teach the children under him the elementary facts concerning the origin of human life. This information must, of course, be given with common sense, in such a way as to allay curiosity, not to excite it. It is not in our

power to choose whether the child will get this information or not. He will get it anyway. We are only able to decide whether he shall get it from a person he respects or from random and disreputable sources. The former course is obviously infinitely preferable. *Neglect on this point is the most productive single source of abnormal behavior trends.* This responsibility rests in the first place on the parent. But if parents fail, others who have contact with the child must accept the duty. For the Catholic child, the practice of Confession is an invaluable help here.

SUMMARY. Conduct peculiarities are usually caused by failure to face a difficulty. Instead of meeting the situation frankly, the person distorts it. Thus he may conceal the whole thing by some defense reaction, or he may substitute something else for it, or he may give up entirely and surrender to a feeling of inferiority. These reactions are unconscious, and they are responsible for the oddities we find in people. Illustrative cases were introduced, and by way of conclusion, the reader's attention was drawn to the need of mental hygiene and of social hygiene education.

BIBLIOGRAPHY

The works mentioned at the end of the last chapter will apply to this also. The reader will be helped by reading some detailed case studies, such as the Judge Baker Foundation studies, Healy ('17) and Drucker ('23).

A very good practical treatment of social hygiene education is given by Cooper ('21). A further treatment may be found in Bigelow ('16).

CHAPTER VI

THE INTELLIGENCE FACTOR

The recently developed technique of intelligence testing has proved unexpectedly fruitful in various fields. The educator has found it most helpful in adapting the curriculum to the needs of the individual pupil. The psychiatrist employs it as a routine procedure in studying his patient. The vocational counsellor finds tests indispensable when advising about the choice of a vocation. In this study, however, we are not primarily concerned with the relation of intelligence to school work or to vocation, to delinquency or the psychoses. Rather, we are interested in the effect of various intelligence levels on the daily life of the average boy. The two chapters which follow will attempt to throw light on this subject by dealing with the retarded boy and the gifted boy respectively. In the present chapter the elementary facts about intelligence testing will be reviewed for the benefit of the reader who possibly has not kept in touch with the subject.

Intelligence testing, in the modern sense of the term, is entirely a development of the last 20 years. • It had its origin in a very practical situation. The Paris school authorities had determined to open special classes for mentally defective children when the ques-

tion arose as to how these defective children could be selected from among the general school population of the city. It was realized that the existing methods were hopelessly crude; so two psychologists, Dr. Binet and Dr. Simon, were commissioned to find a practical method. The result was the Binet-Simon Scale, published first in 1905, and in revised forms in 1908 and 1911. The scale consisted in a number of questions which were intended to represent the average ability of a child of a given age. Thus, for example, in the 1911 revision, an eight-year-old was expected, among other things, to be able to count from 20 backwards to 0, to give the correct date, and to repeat five digits.

The Binet-Simon Scale became immediately popular but soon it was realized that it needed further revision. Some of the tests were too easy, and some too hard, for the ages to which they had been assigned. Accordingly Dr. Terman, of Stanford University, undertook an elaborate revision. Tests were given to about 1000 children and on the basis of these results he published in 1916 the Stanford Revision of the Binet-Simon Scale. Although enormous advances in intelligence testing have been made since that time the Stanford Revision is still recognized as the best single test available. By means of this test the mental age (MA) of a child is determined. Thus if a child has a MA of 12-6 (12 years and 6 months) it may be interpreted as meaning that his intelligence is equal to that of the average child of 12-6. The MA divided by the child's actual or "chronological" age (CA) gives his intelligence quotient (Q). Thus a child with a MA of 12-6

and a CA of 10-0 has an IQ of 1.25. In practice it is customary to omit the decimal point and write the IQ as 125.

Two defects have been found with the Stanford Revision. First, it unduly weights language ability. That is, it underestimates the intelligence of children with a language handicap, for instance, of immigrant children. Secondly, it is hard to administer. To give it properly takes about an hour for each child and the examiner must be trained for the work. As a remedy to these defects two other types of tests have been developed, the construction or performance test and the group test.

The construction test is designed to solve the difficult problem of those who do not speak English well. This includes, not merely the foreigner, but the low-grade feeble-minded, the very young child and the speech defective as well. The construction test involves hand work. It generally takes the form of a puzzle to be put together. On the whole, it has been found that the construction test is a rather unreliable test for intelligence. Thus Lowe ('24), reviewing ten separate standardizations of the Healy Construction Puzzle A concludes that it is not an age-level test at all but a test of a special ability. Perhaps the future will produce some construction test which will test intelligence well; but at present the outlook is not very encouraging.

The other defect of the Stanford, the long time it takes to administer, is met by the group test by which a whole group may be examined at once. Group tests received their great impetus during the war, when it

was found desirable to give all recruits a psychological test. The result of this need was the development of two tests, Army Alpha and Beta. Alpha was for literates, Beta for illiterates. About 1,700,000 men took one or both of these tests. Since then a great many group tests have been published, suited for various needs, for use from kindergarten to university. Group tests are not as accurate as individual tests. The correlations of the group tests now available with the Stanford Revision range around .70. This, it will be seen, is not very close agreement. Group tests are valuable for measuring groups, but for judging the mentality of individuals within the group they are only fair.

Using the same technique as that of the group intelligence test a number of people have brought out group tests of ability in specific subjects. Thus there are tests for reading ability, arithmetic ability and so forth. There are now available tests which combine tests in all the common school subjects. Of these perhaps the best known is the Stanford Achievement Test which combines tests in reading, arithmetic, science, history and geography, language and spelling.

An obvious question is, how much reliance can we place in the results of such tests? This question is usually treated under two heads. (1) Does the test measure *something* with accuracy? This is called the *reliability* of the test. A test might conceivably be so poor that the score a child made on it would be due entirely to chance. Such a test would have zero reliability. (2) Granted that the test can measure some-

thing accurately, it still must be shown that the thing which the test measures is the thing it is intended to measure. This is called the *validity* of the test. A test must possess both reliability and validity to be a good test.

The reliability of a test is calculated by finding what correlation¹ it has with itself. Where the test exists in two forms as for example in the Otis General Intelligence Scale, the reliability is determined by giving these two forms to the same group and then calculating the correlation. Obviously if the correlation is low the test is unreliable. For if the test really measured anything, then the same individuals would always do well or ill. Where a test exists in only one form the reliability is determined indirectly by the so-called Brown's formula. Experts now agree in demanding a reliability of .90 or over for a test to be used in individual diagnosis. Unfortunately not all the tests now on the market come up to this standard.

The validity of a test of intelligence is not so easy to determine. For validity is calculated by correlating the test with some criterion and it is hard to find a

¹ In statistical work it is often necessary, as here, to compare two series of measurements of the same individuals to see whether there is a tendency for the individuals who are high in one series to be high in the other. This is done by computing a *coefficient of correlation*. If the coefficient of correlation (or more briefly, the correlation) is 1.00 there is perfect agreement. Every individual who scores high in one series scores proportionately high in the other. If the correlation is 0.00 there is only a chance relation between the score made in one series and the score made in the other. If the correlation is -1.00, there is perfect inverse correlation, so that an individual will always be just as high in one series as he is low in the other.

criterion of intelligence which is better than the intelligence tests themselves. Suppose a certain group test is given to a class of children. The teacher also estimates the intelligence of the children. Then the teacher's estimates and the test results are correlated and the correlation is found to be low. Now, this *may* mean that the test is a poor test; but it may also mean that the teacher is a poor judge of intelligence. So it is with the other criteria such as school marks, other tests and so forth.

Intelligence tests measure *something* and we are not so sure exactly what that something is. Opponents of testing seize upon this fact with great glee; but it should cause us no scandal. It is the ordinary course of events in the progress of science that a thing is measured before its intimate nature is known. How much do we know of the nature of heat or electricity which we speak of so intimately and measure so accurately? Very little. We know of electricity as a mysterious force which lights our lights, drives our street cars, carries our conversations. So it is with intelligence tests. Nobody knows exactly what this "general intelligence" is which the tests measure; but we do know that it is a quality which enables a child to succeed in school, to enter certain professions, to enjoy certain occupations and we do know that a child who does not possess as much of it as his fellows will not advance in school nor succeed in life beyond a certain point which can be predicted from his intelligence test score. This much is proved fact. We may long for further insight into the nature of intelligence

but what we now know is sufficient for many important practical results.

From the mass of work thus far done in the field of intelligence testing certain interesting results are already apparent. One of these is the fact that the intelligence quotient is approximately constant. Just how nearly perfect this constancy is, no one can yet say with certainty. But all will admit that the IQ does not vary greatly. A child whose MA is four when the child is five, will have a MA of about eight when he is ten, and an MA of about 12 when he is 15. In other words his IQ will be about 80 all the time. Another fact is that intelligence does not continue to grow indefinitely, but ceases at a certain age. No one is able to say with certainty what this age is. Terman set it 16 when he published the Stanford Revision. The Army results when they were published indicated that 13 was about the age. The best opinion at present would probably set the age not far from 14. After that a man may grow in wisdom, in knowledge, in skill, in experience; but pure intelligence probably remains almost constant.

In the present study the Stanford Revision was used for most of the cases intensively studied. Besides this, nearly all the boys were given one or more group tests, the following being employed for the purpose: Army Alpha, Form 7; Otis Advanced, Form B; National, Scale B, Form 1 and Illinois Examination II, Form 1. In addition various achievement tests, construction tests and tests for special abilities were used as will be noted in the discussion of the cases.

To illustrate the use of tests the following case is offered. It will serve to show the advantage of scientific measurement over mere general impression.

Case 15. Walter, aged 10-10, was looked upon by parents and teacher as hopelessly dull. He had repeated one grade and it was only by dint of special coaching that he was able to be promoted to the fifth grade.

In his social reactions, Walter would not impress one as being feeble-minded. He was popular among his fellows, somewhat of a leader. He was always cheerful, obliging and reliable.

Examination with the Stanford Revision yielded an IQ of 92, which is well within the middle 50 per cent of human society. In other words, Walter is brighter than one out of every four boys of his age, which is a long way from feeble-mindedness. As has already been said, the Stanford Revision unduly handicaps certain types. Walter seemed to lack confidence in himself, so three construction tests were given him to see whether he would do better with this type of test. These tests were all standardized for age, so that it is possible to express the results in terms of ages and they are:

TABLE IV

Test	Mental Age
Healy A	9
Mare and Foal	15
Kn6x cubes	14
Average	12-8

By these tests the boy had a mental age almost two years in advance of his real or chronological age. It

also seemed to indicate an aptitude in handling concrete material! We suspected that the boy might have unusual mechanical ability and he was given the Stenquist Assembling Test, Series I. He made a score of 60. Less than 10 per cent of 12-year-olds do as well as this, and Walter, be it remembered, was only ten.

The Stanford Achievement Test was used to measure his achievement in school work. The accompanying table shows Walter's subject ages,¹ with the medians of his class for comparison. The fourth column of the table shows the extent of the boy's deficiency. His backwardness in school work was real.

TABLE V

RESULTS OF EXAMINATION OF WALTER ON THE STANFORD ACHIEVEMENT TEST WITH MEDIANS OF HIS GRADE FOR COMPARISON

Test	Subject Age	Median Subject Age of the Grade	Months of Retardation from class median	Months of Retardation from his age
Reading: Paragraph Meaning	9-3	12-1	34	19
Reading: Sentence Meaning	10-3	12-4	25	7
Reading: Word Meaning....	9-11	13-4	41	11
Arithmetic: Computation....	10-4	11-11	19	6
Arithmetic: Reasoning	8-4	12-8	52	30
Nature Study and Science...	9-10	11-9	23	12
History and Literature.....	10-2	13-3	37	8
Language Usage	8-6	11-6	36	28
Spelling	10-7	11-11	16	3

This is the case of a boy who gives the impression of being very dull, whereas he is really only a little

¹ A *subject age* is a measure of proficiency in a given subject. A *spelling age* of 10-7, for instance, means that the child spells as well as the average child of ten years and seven months.

below the average and, in some abilities, far above the average. What accounts for his apparent dullness? An intensive study revealed these three factors: (1) He came from an unusually brilliant family. Three of his four siblings were examined and yielded a mean IQ of 127. In such an unusual family a boy with an IQ of 92 seems hopelessly dull. (2) The feeling of intellectual inferiority was constantly being borne in upon him with the effect that he began to lose confidence in himself and accept his dullness as a matter of course. (3) His school environment was unfortunately also unusual. He was five months younger than the median of the class which was itself a disadvantage. Besides as will be seen from table the class was unusually accelerated. Walter's educational deficiency really amounted to only one year but placed in such environment it seemed much larger. He was more than two years behind the accomplishment of his class.

Walter was a victim of circumstances. In an average environment he would have seemed an average boy. In an exceptional environment he seemed unusually dull.

SUMMARY. Intelligence testing has proved helpful to the educator, the psychiatrist and the vocational advisor. In the present study we are concerned with the effect of intelligence level on the general reactions of the whole boy. Binet tests, construction tests, group intelligence tests and achievement tests were considered separately. To be satisfactory a test must be both reliable and valid. The intelligence quotient is

at least approximately constant and intelligence ceases to grow at a certain age, probably at about 14. The application of tests was illustrated by one case.

BIBLIOGRAPHY

The literature of the test movement is enormous. There are many good popular introductions, among which Hines ('23 and '24), McCall ('23) and Monroe ('23) may be mentioned. Anyone who wishes to follow the subject further cannot omit Terman ('16). The Army results are summarized by Yoakum ('20) and given in detail by Yerkes ('21). For those who lack the time to read a complete book a paper by Colvin ('23) is to be recommended. Doherty ('23) has published a fairly complete bibliography. This bibliography includes the period from January 1, 1918 to June 30, 1922. Spearman ('23) has written a book on the nature of intelligence which, however, is not easy reading.

The question of the average mental age of adults is discussed by Doll ('19 and '21), Dearborn ('22), Ballard ('21) and others. Brooks ('21) and Thorndike ('23) present interesting experimental evidence on the subject.

A great deal has been written on the validation of tests. Jordan ('23) summarizes whatever had been published on four group tests. Among important experimental studies of the validity of tests may be mentioned Vincent ('24), Ruch ('25), Gates ('23), Franzen ('24), Colvin ('23), Chapman ('22) and Bishop ('24). Pintner ('17) is still the classic on construction tests. Kohs ('23) has standardized an excellent block design test. Stenquist's ('23) tests of mechanical ability open up a new line of development.

Young ('22), Peterson ('23), Haggerty ('24) and Dexter ('24) report data on the heredity of intelligence. The relation of intelligence to school success is treated by Cobb ('22), Feingold ('23), Rector ('25), Laird ('24), and Goodrich ('23).

CHAPTER VII

SUB-AVERAGE MINDS

The difference between the subnormal and the normal boy is a difference of degree and not of kind. Both play, but the normal boy has a greater variety of games. Both have hobbies, but the normal boy has more hobbies. Both learn, but the normal boy learns more and learns it in less time. Both distinguish right and wrong, but the normal boy makes finer discriminations. Lack of variety is the most salient characteristic of the sub-average mind.

Aside from this, the retarded boy shows all the different sorts of temperament and character that are found in his normal brother. The dull boy may be obedient or rebellious, light-hearted or gloomy, industrious or lazy. The following cases are offered as typical of different varieties of the subnormal. It is important for all who have to deal with boys to learn to recognize the type. For it is only by recognizing these boys' limitations that one can help them.

Case 15. Harry is a quiet, shy boy of 15. He lives with his father, mother, brother and two sisters in an excellent neighborhood. His father is an electrician and a very good workman.

By the Stanford Revision Harry has an IQ of 72. Group tests confirm this result. His Otis Index of Brightness is 71 and his Alpha score is 63. He shows

good mechanical ability. In school work he is much retarded; for he is more than two years older than the medium age of his class. The Stanford Achievement Test shows that he is one year and six months retarded educationally. In other words, although Harry is two years older than the average boy in his class, he is doing school work equal to that of a boy a year and a half younger than the same class average. He shows greater retardation (31 months) in reading and least retardation (7 months) in history and literature.

A physical examination shows him markedly under-size. He is about two inches shorter and 25 pounds lighter than the average boy of his age. Vision is very slightly defective. He has high arched palate, crowded teeth and a suspicion of lung trouble. The nose and throat specialist reports that the turbinates touch the septum, and that there is considerable adenoid tissue present.

Harry is an extremely, almost morbidly, sensitive boy. When he is called to task by his teacher for any little fault he feels it very keenly. He never asserts himself among the other boys, and consequently he is the object of a certain amount of teasing. He joined the Scouts and seemed to take a great deal of pride in the fact that he was now on an equal footing with the other boys. He passed the easier tests, but then became discouraged and dropped out. He seldom plays team games but enjoys playing catch with the other boys on his block. At home he is less inhibited. He reads little but enjoys working with radio. He shows

no special skill at this but it is his great hobby and his ambition is to be a radio engineer.* He is obedient and helpful around the house.

Case 16. Everett, age 15, is the third child in the family of four children. Both parents are living, the father is a carpenter and they own their own house in an excellent neighborhood.

A mental and physical examination of Everett yields the following results. The boy is very retarded, but not feeble-minded. He has an IQ of 80 on the Stanford Revision. Three group tests yield approximately the same result. For his Otis Index of Brightness is 91, his Illinois IQ is 79 and his Alpha Score is 82. He shows good mechanical ability. Everett is very markedly undersize. He is 5 inches and 38 pounds under the average for his age. Otherwise the physical examination was entirely negative. Achievement tests show about four years retardation in arithmetic and two and a half years in reading. Other test results are not available. He is about two and a half years older than the average of his grade.

Everett is not as self-conscious and sensitive as Harry but he takes a distinctly minor part in the social life of his class. He seldom plays team games. He was an enthusiastic Scout for a time but then dropped out without having advanced very far. He enjoys reading but has no other special hobbies. He plays simple games with younger children on his block. Everett is never troublesome at school or at home. He is well-mannered, pleasant and appreciative but nervous and fidgety.

Harry and Everett illustrate one type of retarded boy. Their conduct is above reproach. They are conscientious workers and are able to benefit by school work in the lower grades. Everett will certainly, and Harry will probably graduate from grammar school. Then they will drift into some trade suited to their capacity and will be useful members of society in their humble way.

So much is written about the defective before the courts that we sometimes forget that the average dull child may be a useful member of society. Speaking of much more serious mental defect Ecob ('24) reviews the records of 415 feeble-minded from the records of the New York State Commission for Mental Defectives. These 415 defectives were living outside of institutions but were being supervised by four field agents working under the Commission. Out of the total number 13 were known to have been in court. Miss Ecob comments on these facts: "For some time it has been known that intelligence is distributed from the highest to the lowest with no break in the curve. What is more evident than that the work of the world is distributed in the same way, from that which requires a great deal of intelligence to that which requires very little? For every degree of intelligence, except the very lowest, there is suitable work of some kind."

Case 17, Leigh, 15, is one of a large family. The father is a business man, successful in a small way. Psychological examinations of siblings are not available but teachers report that they are all very bright children.

On the Stanford Revision Leigh obtains an IQ of 76. Group test results are also low: Otis Index of Brightness is 38; Illinois IQ is 66 and Alpha Score 34. This is about the intelligence of the average unskilled laborer and Leigh is too old to expect much improvement. The Stanford Achievement Test shows great retardation in school subjects. The boy is three years and one month older than the median of his class, yet in school subjects he is a year and five months behind them. He is most retarded in reading (28 months). His best subject is spelling where he is two months above the class median. It is to be noted that dull children are apt to do well in drill subjects like spelling; but very poorly in reading, especially if the emphasis is thrown on the understanding of the matter read, as is the case in this particular test. A physical examination is entirely negative except for carious teeth. Leigh is 1.25 inches in height, and 11 pounds in weight below the average of boys of his age.

Leigh is popular with his fellows, a good athlete and well liked. For three or four years he associated with a gang whose worst delinquency was clandestine smoking. He has never been known to belong to a bad gang. His teachers find him docile and cooperative, though naturally very slow to learn. His mother finds little to complain of. Leigh is a type of socially inoffensive case, not shy like Harry and Everett, but quite capable of managing his own affairs and earning a living at a simple trade.

Case 18. Norman, at 15, was doing poor work in

the third grade. He is the youngest of three children. The father is a Government clerk.

Psychometric examination showed a Stanford IQ of 56. A physical examination showed normal development, with no serious defects. Construction tests gave a little better results. The boy is mechanically inclined.

Norman never reads at home. He used to play ball but gave it up two years ago after a minor accident. He enjoys movies and attends frequently. Occasionally he goes to a professional baseball game. He is fond of working with radio and likes to tinker with his bicycle, taking it to pieces and then reassembling it. He had a paper route but gave it up because he had difficulty in making change when collecting. Other boys tease him and he gets sensitive. He smokes a little, contrary to his mother's wishes. The latter feels she has good control of the boy, with some minor exceptions, but reports that she must watch the boy constantly to keep him out of trouble. Norman joined the Scouts but was unable to make any progress in the Scout program. To teach him signalling was a hopeless task.

Norman had to be sent to a special school, as he was untrainable by ordinary methods.

Case 19. Douglas was doing very poor work in the fifth grade at 13. His Stanford IQ is 63 and one group test (National) confirms this, yielding an IQ of 68. Construction tests give about the same results. School work is very unsatisfactory. Although Douglas is two years and two months older than the median of his

class, his school work is much retarded behind the class medians. His retardation is gréatest in history and literature (39 months) and least in spelling (1 month). Here again it is to be noticed that the retarded boy does well on drill subjects. Physical examination is negative except for carious teeth. In weight and height he approximates the average for his age very closely.

Teachers and others find Douglas docile but untrustworthy. He is easily managed when the teacher is present but unreliable in her absence. He is almost the only boy in his whole group who has been detected in minor thefts. On being confronted with the facts Douglas is likely to justify his stealing with a course of reasoning, so that one sometimes doubts whether his distorted moral ideas distinguish between right and wrong very well in this matter. His mother reports that he formerly associated with a very evil gang. She moved, partly to separate him from this influence.

Case 20. Russell, 14, comes from a home where there is constant bickering and consequently little control. He lives with father, mother, a sister and a brother in a fair neighborhood. The father is a machinist.

At the age of 13-9 Russell obtained an IQ of 74 on the Stanford Revision. Four constructive tests gave a mental age of 11.3. Group tests tell the same story; the Otis yielded an index of Brightness of 71 and his Illinois IQ was 83. A physical examination showed several minor defects, carious teeth, deflected septum and slight umbilical hernia. His height was $54\frac{1}{4}$

inches and weight (clothes) was 74. These compare unfavorably with the U. S. P. H. S. standards of 60.3 and 95.4 respectively.

Russell does very poor work in school. In the sixth grade, although he was more than two years older than the average of his classmates, the boy was doing only fifth grade work in arithmetic and third grade work in reading. Teachers reported him docile in school but an incorrigible truant.

His parents found him difficult to manage. He was extremely disobedient and even openly defiant. He was very fond of movies and enjoyed all outdoor sports. For several years he has been associating with a very questionable gang and although he has never been detected in any delinquency, it is quite clear that Russell's first allegiance is to his gang and that loyalty to parents plays a very small part in his life. He seldom mixes with the other boys in his class. All his time goes to the gang.

In reviewing these six cases several common factors stand out prominently. The first is the *physical inferiority* of these boys. Of the six, only Douglas and Norman approximated the average height and weight of boys of their age. The other four were very noticeably inferior. This contradicts a somewhat common notion that brilliant intellects go with weak bodies and vice versa. As a matter of fact the reverse is the case.

Porter in 1893 was the first to attack the problem scientifically and to study the relation of size and intelligence. He found that children accelerated in the

grades had a tendency to be taller and heavier than the retarded. The same problem was approached by a number of workers in ensuing years with somewhat discordant results. The history of these early attempts may be found in Stalnaker ('23) and in Gates ('24 educational). None of the investigations was entirely satisfactory either because of inadequate methods of measuring intelligence or of unsatisfactory statistical treatment of the results.

The rise of the test movement and the introduction of modern statistical methods, however, have made a satisfactory approach possible. Baldwin ('22), using partial correlation to eliminate the age factor reported, for 49 girls, correlations of .53 between height and Stanford MA, and $-.15$ for weight and MA. Gates ('24) in an elaborate study involving a total of 115 boys and girls in four grammar school classes gets somewhat different results. Age was partialled out and coefficients of correlation were computed separately for each of the four classes. His result represents the average of the four coefficients thus obtained. He finds a correlation of only .06 between height and Stanford MA. For weight the result is .10. The average correlation for eight physical measurements with MA is .09. By teaming all eight physical measurements together by multiple correlation he gets a multiple coefficient of correlation for Stanford MA against the team of .212. The writer, working with 67 boys, obtained partial correlations (age constant) of .15 for height and Otis Score and .18 for weight and Otis Score and a multiple correlation for height and weight

teamed together against Otis Score of .256 (age constant).

Stalnaker ('23) approached the problem from somewhat different angle. She worked with both children and adults and correlated Otis IQ, National IQ, or, for adults, Thorndike scores, with deviations from normal weight as given in Wood's or Dreyer's tables. She obtained, for the most part, small negative coefficients. That is, a person tends to be more intelligent, the closer he approaches the normal weight for his height; the underweight or overweight are less apt to be intelligent. But this relation was not very marked. Nacarati and Lewy-Guinzburg ('22) working with adults find correlations varying from .13 to .44 between intelligence and height-weight index. That is, intelligent adults tend to be tall for their weight. Various investigators, Woodrow and Lowell ('21), Baldwin ('21), Gates ('24) and others find positive correlations between intelligence and the amount of ossification of the wrist bones as shown by X-ray photographs. That is, more intelligent children are more mature physiologically. Crampton ('07) and King ('14) using very imperfect methods find a positive correlation between intelligence and physiological age. Englehardt ('24) finds a correlation of .112 between composite intelligence score and a test for physical efficiency devised by him. Sandwick ('20) and Mallory ('22) find that the less intelligent and retarded children suffer from more physical defects.

The net result of these various investigations is that the intellectually inferior tend to be inferior physically

also, whether the physical quality under discussion be height, weight, physiological age, absence of defects or proportion of parts. The tendency is small but usually definitely present.

As for the moral side the mentally inferior boy tends to be docile, suggestible and indiscriminating. When he is in a good home and his parents manage him well he tends to be obedient and easy to manage. But unfortunately (as in Russell's case) he shows the same suggestibility toward bad companions. The dull boy is not necessarily less moral; but with equally good intentions he will still commit more anti-social acts because he does not realize their seriousness. In this he resembles a young child. Even the best of little children need constant attention to keep them out of mischief, because they lack good judgment. The retarded boy is a child in this.

As for the social side, the dull boy is likely to be somewhat less popular than his fellows. He cannot take his full part in the life of the group. He has less interests than his fellows. He plays fewer games. He lacks the ready wit of the others.

All this is illustrated very well in the reaction of these boys toward Scouting. Scouting is preëminently the preadolescents' club. An active Scout troop is an excellent cross-section of preadolescent life. All the boys mentioned in this chapter became interested in Scouting. All of them except Russell remained active for a year or more and none of them succeeded in advancing beyond the rank of Second Class. The tests necessary for the rank of First Class Scout, involv-

ing physical exertion such as the fourteen mile hike and the swimming test as well as others involving quickwittedness such as first aid and signalling, were too much for them. To test this statistically the records of all our Scouts whose Stanford IQ's were known

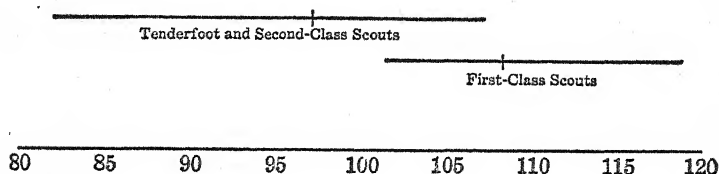


FIGURE 5.—Interquartile Range of Stanford IQ's of 37 Scouts.

and who had been active in Scouting for at least a year were examined. The records of 36 were available, 18 First Class and 18 Tenderfoot or Second Class. As the following table will show the First Class Scouts were very distinctly superior.

TABLE VI.—QUARTILES AND MEDIANS OF IQ'S OF SCOUTS ACTIVE ONE YEAR OR MORE

Class	Lower Quartile	Median	Upper Quartile
First Class Scouts	102.14	108.57	118.75
Second Class or Tenderfoot Scouts	82.50	97.50	107.00

SUMMARY. The boy with sub-average mentality differs from the average boy in degree rather than in kind. His life is less rich and varied. Otherwise he is quite like other boys. Six cases were adduced in illustration. The differences found were, physical inferiority, great difficulty in school work, a less varied

play life, and suggestibility to influence, good and bad. The dull boy will be a useful member of society but his possibilities are much restricted. The worker with boys must recognize such limitations if he is to develop these lads to their maximum efficiency.

BIBLIOGRAPHY

Wallin ('24) is perhaps the best recent work on retarded children from the standpoint of the general reader. Goddard ('19), Porteus ('22) and Hollingworth ('20) are also excellent. Horn ('24) is good, but many of his views are peculiar to himself. Hall ('23) and Nash ('23) give interesting accounts of the play of defective children. Kuhlmann ('21) and Dvorak ('24) find a tendency for the IQ of retarded children to decrease with age.

The standards for height and weight used in this study are the United States Public Health Service norms given in Clark ('22). Those norms were determined by the study of a group of children in Maryland, Virginia and North and South Carolina and therefore they are probably better for use with the children in this study who came from the same section of the country than the more widely used norms of Baldwin ('21). The latter gives a very extensive annotated bibliography for the use of those who wish to pursue the subject further.

CHAPTER VIII

CHILDREN OF HOPE

Perhaps the happiest result of the test movement has been the discovery of the gifted child. Long before tests were invented the problem of the retarded child was acutely realized. It could not be otherwise. He made his presence felt in every school to the grief of the teacher. But the gifted child brought no problem. He did his work quickly and well. He did not need to be urged to study. His promotion caused no doubts at the end of the year. So his problem was not recognized, or if recognized, it was neglected. Then the test movement came and for the first time the educational world awoke to the enormous possibilities of these gifted children.

Just as the dull child differs from the normal by being more restricted in his habits and interests, so the striking thing about the gifted child is the extraordinary richness of his mental life. And just as, in the case of the sub-average, all types of happy and melancholy, obedient and rebellious, surly or winning, are to be found, so too among the gifted all traits of character appear. The dull, the average and the bright differ in intellect and in those character traits, such as suggestibility, which are intimately related to intellect.

In most other things they show the same wide variety. Thus there are unstable dull, unstable average and unstable gifted, just as there are red-headed dull, red-headed average and red-headed gifted. The old theory of types which looked on every dullard as a delinquent and every bright child as probably unbalanced, cannot stand the scrutiny of modern research.

Many of the gifted children whose cases have been reported have had the benefit of unusual training or environment. The following case is particularly interesting on account of the absolute normality of the boy's surroundings. He has always lived in the same neighborhood and attended the same school as the other boys here studied and his home is quite a typical one for the neighborhood. One can say, then, with a considerable degree of assurance that whatever is exceptional in this boy is not due to unusual environment.

Case 21. Dan, 13, is the oldest of five children who live with their father and mother in a house which they own and which is situated in an excellent neighborhood. Three of the four siblings have given the Stanford Revision and their average IQ is 107, which is only slightly above the average of the children in this part of the city. The remaining sibling, a tiny girl, was too shy to be tested.

It is hard to find suitable tests for Dan's intelligence. The Stanford Revision is hardly suitable in this case; for it does not test beyond a MA of 19-6. This test was given to Dan at the age of 12-9. He passed all the tests; but the resulting IQ of 153 does not represent his real ability. It simply means that the Stanford

Revision does not apply beyond that point. The only tests which were given him which were suitable to test his real ability were the Otis Advanced, Form B, and Army Alpha, Form 7. In the former he secured an Index of Brightness of 188 (100 being normal); in the latter he scored 174, in spite of the fact that Alpha handicaps slow workers (Ruch '23) like Dan. To appreciate the significance of an Alpha score of 174 it must be remembered that the average soldier scored around 65, the average officer about 130 and the average college graduate about the same. Standards for the various professions have been computed. The highest level reported for any profession is that reported for engineer officers who attained a medium score of 157. It has been found that graduate students in our best universities average about 165. Yet Dan was a 12-year-old boy in the seventh grade when he scored 174!

The boy's abilities seem to be remarkably well balanced. No type of tests seems to be easier for him than another. Three construction tests were given and he reached adult standard in all. The Stenquist Assembling Test, Series I was used to test his mechanical ability and he scored 98. This score would place Dan in the first one or two percent of Army men who were given the test.

The physical examination was entirely negative. He exceeded the norms for his age by about 5½ inches in height and 33 pounds in weight.

Dan does violence to the traditional conception of the prodigy. Instead of being delicate and wizened, he is large and overflowing with physical vigor. Instead

of having delicate features set off with horn-rimmed spectacles he glories in freckles and riotously red hair. To the casual observer he is just a good, typical specimen of the *genus* American Boy. His play is not meager and restricted; on the contrary it is unusually rich and varied. It is interesting to notice what the gifted child does during his leisure time, when he is really master of his own activities. Dan's play will be examined under several headings. All the activities here described have been observed by the writer personally within the last ten months.

1. *Standard Games and Amusements.* Dan enjoys all the standard games. He likes basketball, baseball, tennis, football, volley ball, in about that order. He plays these as often as he has a chance, that is, almost every day when school is in session. During the long summer vacation there is less likelihood of finding enough boys in his neighborhood for a good game of baseball. In the proper season he plays marbles or skates on roller-skates. Juvenile conventions limit these recreations very strictly to definite seasons. In the summer he enjoys swimming, canoeing and auto riding. He plays most of these games better than boys of his age; but his unusual physical development is probably responsible for this.

2. *Intellectual Diversions.* Dan is an insatiable reader of the most diverse material. He reads and enjoys the usual run of juvenile fiction and in this he is no different from other boys of his age. But he also has a peculiar and individual taste for all sorts of non-fiction which bears on the general field of physical science.

He likes to browse around a library and there he reads about such diverse topics as coal-tar products, archery, auto engineering, telescopes, plant metabolism, conjuring, interferometers, the chemistry of high explosives and the theory of relativity.

It is interesting to note that Dan is just as immature as any other 13-year-old in his choice of subjects. It would be as hard to interest him in philosophy, social science or even in a good adult novel as it would be to interest the average boys of his age. Dan differs from his companions only in the *sort* of interest they take in the same subjects. Both are interested in machinery, science, astronomy, chemistry. But while the interest of the average boy is limited to watching a garage mechanic at work or perhaps reading some book on popular science written for boys, Dan can describe Foucault's experiment or tell you the chemical symbol for antimony. It is no contradiction to the above generalization to add that Dan borrowed and read some of Shakespeare's plays at the age of ten. That poet's universal genius appeals to old and young alike. Lamb's "Tales" is a children's favorite. But most 10-year-olds cannot understand the original text.

Dan is not particularly musical. He plays a bugle in the Scout band and enjoys the family Victrola. He goes to the movies once in a while and enjoys the comedies most of all.

2. *Manipulative Play.* Under this head come some of Dan's most characteristic amusements. He is particularly fond of the newly developed scientific toys. He has a large Meccano set with which he builds all

sorts of model machines. A chemical set and an antiquated book on chemistry which he came across somewhere taught him many chemical facts. It is interesting to note that Meister ('23) finds that such toys are actually more efficient than science classes in teaching elementary science.

Dan enjoys manipulating all kinds of machinery, working on autos, typewriters or radio. He makes bows and arrows, model airplanes and a peculiar contrivance popular among the boys of his neighborhood and known as a "tank" whose essential parts are a spool, a burnt match, an elastic band, a piece of paraffine, and two tacks. He enjoyed for some days an elaborate series of experiments on the feasibility of setting off fire-crackers under water or under ground by electricity.

Almost anything that can be manipulated is a joy to Dan's heart. Once he found a slide-rule on my desk. Of course he soon knew all about it. A drawing pen and a pair of compasses were a source of happiness for a couple of days, as was a telescope which he bought for two dollars.

3. *Fighting Games.* Every boy enjoys a fight. The fight to a finish *au Tom Brown* is uncommon in these effete days; but the same old fighting instinct lives on. Dan and a chum of his have formed an alliance for several months now against two other boys and they clash with the opposition during school recess with much joyful squealing and perfect good nature. Besides this guerrilla warfare there are sometimes inter-grade clashes, accompanied by more bruit than bruises. Or the gang devotes a spare hour to the persecution of

some unfortunate who has incurred their displeasure. Or perhaps the janitor is the unhappy victim.

4. *Scouting.* Dan entered the troop at the age of 12-5 and advanced to the rank of First Class in nine months. The average (median) time required for this advancement for the boys in this particular troop is a year and two months. So Dan is accelerated. He takes his part in all the usual troop activities, troop meetings, patrol meetings, tests, hikes, camping. In all this there is little to distinguish him from the other Scouts.

5. *Unclassified Amusements.* The play spirit is so strong in the normal boy that not only does he take to the standard games as readily as the proverbial duck takes to water; but he even invents games of his own on the spur of the moment. It need not be an elaborate game. He has an inspiration and says to his companions "Let's see who can do this best!" and the game is born; the next day it is forgotten. Among such original and short-lived games which Dan has been seen to play with his companions are the following. (1) A paper cylinder was made with the aid of a little paste. This was set in the middle of a desk and two opposing players took their stations at opposite ends of the desk, each trying to blow the cylinder over his opponent's end of the desk. Touching the cylinder was not allowed. Score one point every time you blow the cylinder over your opponent's end. (2) Baseball played in a school corridor with a basketball or football batted with the hand. (3) The "tank" spoken of above is a sort of perambulating spool which travels

under its own power. There developed a game of which the object was to push the opponent's "tank" back with one's own "tank." (4) I have seen Dan and his gang amuse themselves for days, off and on, by choosing sides and then trying to keep the other side out of a certain room by main violence. It was good fun but hard on the room.

Dan's educational history is a record of maladjustment. He was a very bright baby. He began to talk at about 11 months. Before he was two he could recognize all the letters of the alphabet. He entered school at five and a half. The teacher found him a very timid child. She could not induce him to recite, except when she called all the other children of Dan's row in turn. So at the end of the year he was not promoted! Dan then advanced in lockstep, one grade per year for the remainder of the course.

Of course a boy with the intelligence of a post-graduate university student finds the work of the grades absurdly easy. He studies in the most desultory fashion, not more than 15 or 20 minutes a day and his monthly average seldom falls below 98 or 99. In the last three semester examinations his averages were 100, 99 $\frac{5}{8}$ and 99 $\frac{3}{4}$ respectively. The Stanford Achievement Test was too easy for him and the educational age of 18-7 which it gave him was computed by extrapolation. The tables furnished in the manual of directions do not go as high as that. To show how little benefit a gifted child may get out of the ordinary curriculum, test 6 of the Stanford Achievement Test was analyzed with Dan. This test deals with nature study

and science. Out of 95 items Dan answered 93 correctly. It was found that 29% of these had been first learned in school while Dan had learned by himself 71% of these items of information from out-of-school sources.

The obvious waste of time involved in this maladjustment is not its most serious feature. What is much worse is the fact that it teaches Dan habits of laziness. If an average pupil studied as little as Dan he would be severely taken to task. But Dan is praised for leading his class. We cannot blame the boy for this. His school training has fostered the attitude.

To remedy this obvious maladjustment acceleration was first proposed. The school authorities hesitated about this, so a plan of enrichment was adopted as a compromise. During the summer Dan covered the eighth grade arithmetic with his teacher for a tutor and during the eighth grade he was excused from arithmetic. In the time so gained out of the school day (about four hours a week) together with about an hour a week special tutoring Dan was given a course in mathematics beginning with high school algebra and extending to calculus. The success which Dan attained in this hurried course confirmed the results of previous tests.

It is interesting to note Dan's reaction toward his own brilliancy. It has been said that the gifted child should not be told that he is gifted. This is excellent theory but difficult practice. When a boy gets almost perfect marks in school, month after month, with very little effort, he is sure to suspect that he is rather un-

usual. Dan cannot help realizing that he has unusual powers. The surprising thing, though, is his reaction toward that knowledge. He seems to regard it as an interesting fact of no particular consequence, like having freckles. In all the time I have known him I have never seen anything approaching self-consciousness over his brilliancy or a tendency to parade his talents. Dan could be summed up in two words—he is a normal boy.

The subject of the exceptionally gifted child has been given a great deal of attention in recent years. The composite picture of the typical bright child presented by these investigations bears a great resemblance to our picture of Dan. It will be worth while to review briefly the results of some of the research work being done along this line.

Terman ('25) in a recent elaborate study of gifted children in California made a survey of about 250,000 children in various school systems. This research disclosed 618 children with IQ's of 140 or above. This is a proportion of about one in 400. It is very probable, however, that a number of children were overlooked in the study so that the true proportion should be somewhat higher.

The study of children of this unusual degree of intelligence has brought out many interesting facts. The gifted child usually comes of a family much above the average in every way. Terman in the California study found that of the 62 members of the Hall of Fame, 14 or 22.58% were known to be related to one or more of the gifted children studied. Ratings of the homes

showed them to be distinctly superior. The average family income was \$3200. Physical heredity was superior and the number of parents separated or divorced was not greater than in the community at large. The parents were far above the average in education. Yates ('22) estimated that three-fourths of a group of gifted children studied by her were of gifted ancestry. Almack ('22) finds that as a rule superior children come from superior homes. Cobb ('25) finds that the siblings of gifted children are themselves above the average mentally.

What has been said above about the positive correlation between intelligence and physical traits would lead us to expect that the gifted children, as a group, would be above the average physically. This has been borne out by a number of studies. Hollingworth and Taylor ('24) compared a group of 45 children testing above 135 IQ with two groups of average and deficient mentality studied by Tirapegui. All three groups were matched for age, sex and race. The investigators found that only 20% of the average children reached, or exceeded the median height of the gifted children, while only 28% of the subnormals reached or exceeded the median of the average children. For weight the corresponding figures were 18% and 36%. There were, however, wide individual variations. Terman in his California study comparing the gifted children with a control group finds that the gifted children are superior in general health, in physiological age and in size. They also show less nervousness. Jones ('25) found great acceleration in both height and weight. Cleve-

land ('21) found a higher percentage of gifted children were of the proper weight for their height. Yates ('22) and Dearborn ('23) find gifted children physiologically accelerated.

The gifted child is not one-sided in his development. There is, quite naturally, a more intense interest in intellectual things among these children, but this does not exclude a normal interest in the usual games of children. Terman found that the gifted children greatly excelled in all sorts of play information. They were one or two years more mature in their play interests. They were somewhat more interested in intellectual games and somewhat less in active games than the control children. Coy ('23) finds that gifted children are much more interested in reading than average children but along all other lines there were no significant differences.

Of even greater significance to the student of society is the fact that there is nothing abnormal in the relations of the gifted child to his play-mates nor in his general conduct. What differences have been found are uniformly in favor of the gifted. Davis ('24) as a result of questionnaires sent to 62 teachers and supervisors in 18 states finds the consensus of opinion is that these children are popular among their fellows. Stedman ('24) studied a special group of gifted children in an opportunity class and reports that in the rare cases where a child showed faulty adaptation, this disappeared as soon as he was thrown among children of the same level of intelligence. Johnson ('23) reports the composite judgment of the 33 teachers of 900 chil-

dren in special opportunity classes in St. Paul. The teachers found gifted children as a group were more imaginative, more courteous, had a keener sense of humor, were more cooperative, more willing to take suggestions, more talkative, not more domineering, nor more self-willed nor egotistic than average children. Jones ('25) remarks on their superior balance. Coy ('23) confirms this. Mudge (fide Davis '24) reports fewer love affairs among a group of gifted girls. Terman in five objective tests for various moral qualities found the children of high IQ were superior in every case. Root ('21) reports very superior character traits in 53 supernormal children included in his study.

Almost all investigators are struck with the insatiable curiosity of these children. This is perhaps their most characteristic trait. The way in which they pick up information from the most varied sources is little short of marvelous. Terman gave an elaborate information test to his California group and found that while the mean educational quotient was 135 the mean "information quotient" was 155 for the boys and 147 for girls. This means that while their scholastic achievement was equal, on an average, to that of children 35% older, their general information was much more remarkable. This was not due to parental coaching. In only a few cases did parents try forcing. In most cases children were allowed to follow their own pace. In 10% of the cases they were actually held back. Miss Hempleman (fide Davis '24) of Detroit taught for two years an experimental class including both bright and dull pupils. She makes the interesting

observation that when, on a field trip, she called the children together to point out some object or to explain some point the children would arrange themselves about her in concentric rings with the brighter children uniformly in the inner ring.

The faults most frequently mentioned in connection with the gifted child are egotism and laziness. Of the two, egotism presents the less serious problem. Over half the teachers who responded to Davis' questionnaire report that they have never been troubled with boasting or egotism among their pupils. When the fault does appear it seems to yield easily to treatment. By individual talks, by ignoring the offender, and by praising others the tactful teacher finds it easy to overcome this fault when it appears in her class.

The problem of the lazy child of high IQ is much more difficult. Laziness in these cases is generally a habit of long standing. The child finds it easy to do satisfactory work in class or even to lead the class without doing much work. There is no incentive to make him extend himself. When, therefore, the gifted child enters the opportunity class he often fails to put forth his best efforts. Even experienced teachers find it difficult to solve this problem. Over half the teachers responding to the Davis questionnaire state that they could not always cope with the situation. The real remedy, of course, is to remove the cause. Our present educational system encourages laziness in the bright child by not giving him enough work to make him extend himself. The remedy is to provide a curriculum so adjusted to the needs of the individual that

even the brightest children will be forced to do their best.

SUMMARY. The gifted child differs from the normal by having much broader and deeper mental life and more varied interests. He does not conform to any particular characteristic type of temperament. Except in intelligence he is likely to be much like other children. This was illustrated by a case. There has been much research recently on the gifted child. The typical gifted child comes from superior home environment. He is slightly larger and healthier than most of his companions. He is superior in intellectual traits of all kinds, has more interests and makes finer moral discriminations. Terman's often quoted phrase sums the matter up: "If the crime of kidnapping could ever be forgiven it would be in the case of a child like one of these."

BIBLIOGRAPHY

The literature on the gifted child is very extensive. The best two references are probably Terman's ('25) elaborate study and the Twenty-third Yearbook of the National Society for the Study of Education, Part I, in which a number of the best authorities sum up the latest results on the study of the gifted. In the same reference will be found a number of excellent papers on the curriculum for the gifted, together with some objective evidence on the efficiency of various methods. The yearbook contains a fair bibliography.

Whipple ('19) is a pioneer work in the field, interesting historically. Garrison ('17) and Hollingworth ('22) present two papers on the same prodigious child. Van Alstyne ('23) has a good study of ten gifted children who did not do satisfactory school work. Hoke ('24) and Gillingham ('23)]

present evidence which conflicts with the usual results. The former found that acceleration was not good for gifted children; but the tests used to select the "gifted" children were crude. The latter reports various kinds of unbalanced personality which she considers characteristic of superior children. Jones ('25) has a careful study of 120 gifted children. For further data on the case of Dan see Furfey ('25).

CHAPTER IX

THE INFLUENCE OF THE HOME

That children bear a striking resemblance to their parents in various ways must be obvious to everybody. As a general rule the influence of family on physical appearance, manner and personality is strong. What is not so obvious is the cause of all this. How much is due to heredity and how much to environment? This is an extremely difficult question to settle. A certain boy is a thief and his father is a thief. Is the boy's dishonesty due to imitation of his father's habits from early years, or is there a congenital family weakness by reason of which both father and son lack the moral strength to overcome temptation? One way to answer this question is to study children who have been adopted by foster parents at a very early age. Do such children resemble more their real parents, or their foster parents? Resemblances to the former must be ascribed to heredity; resemblances to the latter to environment. Investigations using this method are now under way in several quarters but nothing has been published except some preliminary results by Terman ('24 possibilities) who finds that heredity is the potent factor, rather than environment in determining the degree of intelligence in the child. In general, considering the present state of the evidence, the most probable

solution of this mooted question seems to be that heredity is responsible for general traits, such as intelligence, nervous instability and, of course, physical characteristics; while early environment determines more specific reaction patterns, such as social attitude, likes and dislikes and, to some extent, temperament and disposition.

In the present chapter we are concerned with the influence of home environment. Parents and other members of the family may influence the child in two quite different ways. They exercise an *explicit control* over the child's actions by insisting on the observance of certain rules and by enforcing these rules with rewards and punishments. This is done consciously, of set purpose. But there is another sort of control, an *implicit control* which is exercised unconsciously. Even without intending to do so parents influence the child's conduct in numerous subtle ways, by example and by giving unconscious approval and disapproval. The following cases are offered as typical of the sort of control which is being exercised by the average parent in the group studied.

Case 22. Edwin, 14, lives with his father, mother and sister in a quiet neighborhood in a house which the family own. The father is a newspaper printer and is absent from home most evenings. The mother is an excellent housekeeper, seldom goes out and is thoroughly devoted to her family. Edwin is doing satisfactory work in the eighth grade. He is above the average in intelligence. Disease history and a physical examination reveal nothing significant.

Edwin's parents exercise control, first of all, over his moral life. They insist on honesty, obedience, consideration toward others and similar moral virtues. Then there are certain rules which they enforce concerning the general household routine. Edwin has a number of recognized household duties. He must chop the wood, run errands, tend the furnace, and make himself generally useful around the house. There is not much control over his comings in and goings out. He is allowed to wander around the neighborhood at will and if he would rather play baseball than eat he is at perfect liberty to do so.

Like most parents, Edwin's father and mother are keenly interested in his education. His father hears his lessons sometimes, to make sure he knows them well. Edwin himself sometimes helps his younger sister. The mother makes a point of seeing the boy's teacher occasionally to get reports from her and both parents take a keen interest in Edwin's report card. For a time the boy took music lessons, but after several unsuccessful attempts to make him practice regularly, Edwin's parents decided that he was not born to be a pianist.

There is a wise amount of control over the boy's recreation. The mother is very much of a companion to the lad and from him she hears about his companions. He goes to the movies about once a week, on Sunday afternoons. The parents encouraged Edwin to join the Scouts and they have always taken an interest in his progress through the different grades. The family is seldom able to take much recreation together. Occasionally they spend an afternoon with relatives or take

an auto ride with a friend of the father. On such occasions Edwin goes along too.

The parents have often remarked that they would like to have Edwin work during the summer vacation; but since no suitable jobs turned up, they did not press the idea very much. They are not in favor of having the boy work after school during the school year, but would rather have him devote his energies to his studies. Edwin has about 50 cents a week spending money. He also has the privilege of saving old newspapers about the house and selling them to the junk man. He spends his money principally on candy, movies and little items at school, such as pens and paper. He has a bank and is encouraged to save.

Edwin's parents are, of course, very much concerned over the lad's health. They watch what he is eating and nag him more or less for not drinking milk nor eating enough vegetables; but they do not press these points very much. When he cuts himself in play the mother dresses the wound. When he is sick they keep him home from school and in more serious illness, call the doctor.

How are these various principles of control made effective? First, by teaching. When a boy is taught to do a certain thing from his earliest years he is likely to do it from habit. The parents have the big advantage of being the first on the scene and many good habits are formed before the child has any occasion to do the contrary. Then there is the influence of attitude. When it is taken for granted in the family circle that swearing, for instance, is wrong, then the boy will

avoid bad language, even without formal teaching, until some very strong counter-influence appears. When these milder measures are ineffective Edwin's parents do not hesitate to use the rod. The mother is the usual rule maker. Only in more important matters, or when more drastic measures are needed is the father called in.

The case of Edwin is typical of the amount and kind of control exercised by the parents of the boys in the group studied. It will be interesting now to generalize the picture and present a sort of composite picture of the sort of parental control found in the homes of these boys. The material falls under three heads, in answer to the three questions. On what points is the control exercised? How is it exercised? By whom is it exercised? Taking the first of these questions, the subject falls under six heads, the control exercised in regard to moral faults, family order, studies, recreation and social training, economic training and health.

1. *Moral Faults.* It goes without saying that parents are extremely interested in the moral life of the child, Obedience seems to be the first virtue inculcated, then honesty both in telling the truth and respecting others' property. By the time the boy has reached the age we are considering these virtues have probably already become firmly rooted habits. Quarrelling and the use of bad language call for frequent reproof. Clandestine smoking is likely to occur at this age. Most boys experiment with the weed but in the group studied it had become a habit in very few. Parents also take a keen interest in the religious duties of the children.

2. *Family Order.* Most of the boys were required to stay in at certain times, especially on nights preceding school days, when they were expected to stay in and study. Some were required to appear at meal time always; others were allowed to miss their meals if they wanted to. Some had, and some had not, a definite time for rising and going to bed.

Nearly all the boys have chores to do around the house. The following six cases are typical instances.

A. Washing dishes, scrubbing vestibule, shovelling snow, sweeping sidewalk.

B. Keeping the garage and auto clean, cleaning the entry, cutting grass, taking up the ashes.

C. Running errands for a very large family.

D. Taking care of the furnace, cutting grass, bringing up coal and wood, shovelling snow, sometimes washing dishes, on Saturday help clean the house, e.g. by washing windows.

E. Running errands every Saturday, taking out the ashes about three times a week, drying the dishes about twice a week and washing them about as often.

F. Chopping wood and taking care of the furnace and lawn, occasionally making minor household repairs.

3. *Studies.* All parents are vitally interested in their boys' success at school. When a boy did poorly in school, failing in a lesson or getting a poor mark in a test, the effect of the news at the home was always one of the first ideas to occur to him. Some of the parents were interested in getting some supplementary education for their children, in the form of music lessons or summer school work.

4. *Recreation and Social Training.* Nearly all parents have a very definite attitude toward their boy's recreation. The most intelligent parents take the trouble to keep informed about their boy's associates and to insist that he avoid undesirable ones. There is usually a definite family policy about commercial recreation. Most of the boys were not allowed to go to the movies more than once or twice a week, particularly when school was in session. An occasional mother frowned on football and swimming as dangerous amusements. Many parents required permission to be asked and granted before letting their boys go very far away, for instance, for a swim. Of course, more important matters, such as joining the Scouts, require family approval.

There is some participation by the boys in the social life of the family circle of friends. Of course, the boys must attend weddings and funerals and such important functions. Most boys heartily loathe the experience of being taken to call on the family's adult friends, where "company manners" must not be forgotten. Training in some of the elementary forms of etiquette takes place in most families.

5. *Economic Training.* Most adults who have no children of their own will probably be surprised to learn the amount that a boy needs for spending money in a modern city. For most of the boys studied the amount varied between 50 cents and a dollar per week. It was hard to get accurate figures because in the great majority of homes the boy is not placed on a definite weekly allowance, but depends on random gifts. Some-

times he asks for money for specific purposes, sometimes he is given money for good conduct, sometimes he earns money for himself. Only a few of the boys in this particular group held regular jobs, partly because a majority of them were too young, partly because the economic pressure was not great. The few who did work, either after school or in the summer, were usually given a certain part of their total earnings for spending money. But aside from regular jobs the boys earn a considerable amount of money through odd jobs of various sorts, shovelling snow in winter, selling old papers (Edwin), distributing magazines, working on paper routes, caddying and so forth.

Most of the boys were taught by their parents to save, either by using a savings bank, saving stamps or at least by a bank at home. Economic education is a branch of education in which home training can be made very efficient. Children ought to be given definite allowances, and taught to adapt their pleasures to this limit. It is an excellent thing to teach a boy to save up his money when he wants a bicycle or a radio set. He will appreciate it more thus than he would if it were an outright gift.

6. *Health.* Mothers are proverbially concerned about their children's health. Every recurring spring brings a struggle into many a home between the mother who still insists on winter clothing and the son who would discard it. On the whole parents exercise a wholesome supervision over such things as food, clothing, sleep and elementary health rules. More technical requirements such as vaccination, dental

hygiene, and balanced diet are given an amount of attention which varies very much according to the intelligence of the parents.

The next point is the manner in which this control is exercised. Moral teaching has already been referred to as the principal means of control. Moral teaching can be reinforced at home by systems of reward and punishment. The most common punishment employed in this group was keeping the boy in the house. This punishment became more acute the more attractive the outside activities became. To keep a boy at home when the rest of the gang are going on a hike is no small punishment. In case of more severe offenses most of the parents in this group did not hesitate to use corporal punishment. Mere scolding must also be reckoned as a rather effective disciplinary measure.

For unusually good conduct rewards are common, particularly for good work at school. But even aside from formal rewards, the spoken or unspoken commendation of the parents is a powerful factor of control.

A final point concerns the person who exercises the control. The mother is by all odds the most important factor. The father is called in to decide important matters or to administer discipline. His word brings quicker obedience than the mother's but it is heard more rarely. The mother's great influence is due to her almost constant presence around the house and to the great love borne her. It is perhaps unfortunate that more fathers do not take a detailed interest in the lives of their boys; for there are some things, for -

example, the ethics of fighting, which the feminine mind can never grasp. Often an older sister becomes almost a second mother in the control she exercises over a younger brother.

The supreme aim of parental control as of all discipline ought to be to make the boy regulate his own life. A home in which the boy's every action is mapped out for him, may produce a little gentleman when the boy is young. But when the boy grows up and leaves the home he will lack training in the essential ability of making up his own mind between right and wrong. Excessive control is almost as bad on a boy's character as no control at all. The following case is an illustration.

Case 23. Franklin is a boy of very superior intelligence. He is a normal 13-year-old boy, but overweight and pallid. A physical examination is negative. He is the only child of parents who are imprudent in their control of Franklin. The family lives in a somewhat poor section of the city and in their anxiety to preserve Franklin from unwholesome influences, they have gone to the extreme of never letting him leave their sight except to go to school. He is never trusted to go on an errand.

The boy was discouraged and dissatisfied with his lot. He complained bitterly about the different treatment which he received at home as compared to the other boys. Asked to "make up a dream" he promptly responded with five ways of committing suicide. For instance, "I imagined I had stolen a pistol and blown my brains out. Then my family was sorry and wished

they had let me out more." Another time he responded with the following dream whose application to his situation in life is obvious. "I was in jail . . . I killed somebody . . . policeman tried to get me out because he liked me . . . judge wouldn't let me because he didn't like me . . . policeman brought me a file and one night I got out and bought a whole lot of dynamite and blew the whole jail up."

When asked his ambition, Franklin promptly responded that he would like to be a soldier and gave as a reason "so I can fight." "Do you like to fight?" asked the examiner. "You bet!" answered Franklin, and then followed a story of how the other boys called him a "sissy" because he wouldn't fight, a thing which had been forbidden at home. Finally a teacher with insight advised him to drop this policy with the result that Franklin fought and won his first fight, a dash of color in a drab life.

Franklin, of course, is an extreme case. The result of such excessive rigor ought to be evident to anyone with common sense, a quality which Franklin's parents seem to lack. On the other hand, when circumstances conspire to deprive a boy of a proper amount of parental supervision the effects are even worse, as the case of Chester will show.

Case 24. Chester, 15, has an IQ of 76. He is just the type which needs a maximum amount of intelligent care. Instead of this he has always lacked it. Born in a Philadelphia hospital, he soon lost his mother who died of tuberculosis. He was placed in an infant asylum in another state and remained there until he had

passed his third birthday. For the next six years his history is difficult to follow with certainty, but he seems to have spent part of the time with relatives and part with his father, an itinerant painter who travelled from city to city wherever the prospect of work appeared.

At nine Chester was convicted of robbing a poor box and playing truant from school. Two years and a half in an institution for semi-delinquents followed. Then, after a year spent with the father, the latter placed Chester in another institution of similar character. He escaped once, was returned, and finally removed by his father. Various minor thefts followed until the boy stole \$30 and took a gay trip to Philadelphia. This brought him to the attention of the juvenile court.

Chester's case is not a simple one to unravel. Various factors had their share in his undoing. But it cannot be doubted that the almost complete lack of parental control was a big factor. He never had had a mother's care. His father's influence had been a poor one. Although he occasionally gives the lad a beating on general principles, he has no idea of real parental control.

What has been said thus far in this chapter concerned explicit control of children. But there is an equally important form of discipline which is exercised without the conscious intention of the parents. This is implicit control. Just as parents consciously guide their children by teaching, reward and punishment, so also they guide them unconsciously by a sort of unconscious teaching, reward, and punishment. The small

child imitates his parents because they are his embodiment of the adult world. The father, by his every word, his every act, is teaching the child what to look on as the ideal of adult conduct. If the father is harsh, rude and violent, then harshness, rudeness and violence will form part of the child's idea of what a really fine person should resemble. This is a sort of unconscious teaching. Similarly the mother who magnifies her child's every ailment and lavishes sympathy and care on minor ailments is creating a pleasant situation which amounts to a reward for being sick. What wonder if a child declares itself sick on the least appearance of pain or discomfort? Its mother was unconsciously training it to do so.

Conscious moral training is intermittent, but this unconscious process is going on almost constantly. It takes place in the child's most impressionable years. It is little to be wondered at, then, if we can often trace the child's "nervousness" back to a neurotic mother, or if we find that the effeminate boy has an indulgent mother. Parenthood is a calling which demands the best a man or woman has. A teacher can perhaps hide her faults; but in the daily contact between parent and child nothing but genuine high-mindedness and unselfishness will serve to reproduce these virtues in the child.

SUMMARY. It is hard to separate the influence of heredity from the influence of environment. But certainly home environment has a very important effect on the character and personality of the child. Parents influence their children both consciously and uncon-

sciously. Parental influence concerns especially moral faults, family order, school work, recreation, money and health. A wise regulation of these things is an extremely difficult matter. Extremes of supervision and lack of supervision are to be avoided. The ideal parent is one who has the insight to guide without seeming to guide and who can obtain a maximum of control with a minimum of rules by making the boy do things on his own initiative, because he knows them to be right.

BIBLIOGRAPHY

Modern social case work is developing a technique for studying home conditions. Richmond ('17) is the standard text. Williams ('18) has published a scale for assigning a rating to a home. Using this scale Clark ('22) found a correlation of .25 between home rating and intelligence of the child.

There is an extensive literature on the question of heredity. Galton's ('69) study of hereditary genius is a classic. Woods ('06) studies heredity in the royal families of Europe. Cattell ('06) studies American men of science. There are a number of studies of degenerate families of which Goddard's ('19) and Dugdale's ('95) studies are representative. Kammerer ('24) and Castle ('24) represent the biological approach.

CHAPTER X

THE GANG

Normal human beings of all ages seek the companionship of their fellows. The psychological basis of this is obscure, whether there is a special "instinct of gregariousness" or no. But the fact remains. The infant is happier when its mother is present. The small child grows peevish if left alone. The young boy is happier when playing with other children.

There is a more or less definite time in the life of every boy, usually between the ages of eight and ten, when this tendency takes a very characteristic form. Heretofore he sought companions as an aid to his own individual activities. It was more fun to run when one had a competitor. One could build a bigger snow fort with the aid of two or three others. Now, however, aims are less important. The really interesting thing is not what one does oneself but what the gang as a whole does. The gang's the thing!

To realize the change that takes place at this time one has only to try to organize a baseball game, first between two teams of boys of eight or nine and then between teams of 10- or 12-year-old boys. The younger boys will be overjoyed at the chance to play ball. They go out on the field with exuberant enthusiasm. Two or three begin to play catch at once. A pair has an

informal race around the bases. Another boy gets immense pleasure by standing at the plate and swinging a bat at a phantom ball. But when the adult begins to organize the game, then difficulties begin! It is a struggle to make the boys drop their various individual activities and choose up sides. When one has finally succeeded in this, there is another struggle arising from the fact that each side has nine candidates for pitcher and nine candidates for the lead-off position on the batting order. And then if one actually succeeds in starting the game, it is a continuous struggle to keep the center fielder from running after grasshoppers or going home disgusted because he couldn't pitch. With boys two or three years older, the organization of a game is much simpler. There are difficulties, of course, but your 12-year-old realizes what team spirit means and, even if he himself must play right field he gets a vicarious satisfaction out of the brilliant work of his pitcher who makes 15 strike-outs and he is ecstatic when a team mate wins the game with a three-bagger, though he himself couldn't manage to get a hit.

This changed viewpoint is so characteristic that the age from, say, 10 to 14 is often called the "gang age." And rightly so! For the gang is not a superficial phenomenon, like having the measles or learning decimals. It is a psychological attitude which affects the boy's whole personality. It is a period of profound change which finds the boy an individual and leaves him a member of a social whole. The boy learns civics from his teacher, but democracy from his gang.

Various attempts have been made to estimate what

proportion of children belong to gangs. For instance, Sheldon ('98) in his pioneer work found from a questionnaire study of 2508 boys and girls that 810 or 31% had never belonged to gangs. One suspects, however, that a fallacy underlies such studies. It is like asking children how many of them have been sick. Of course everyone has been sick to some degree. One will answer "yes" or "no" to such a question according to his criterion of sickness. So with the gang. The question is not how many have belonged, but how much they have belonged. For there are all degrees of gangness between the loosely-organized play group and the spontaneous club with officers, constitution and initiation; just as there are all degrees of sickness between a slight headache and the articulum mortis. Probably everyone has been in a gang of some sort. But gang differeth from gang in organization.

The existence of the gang is a phenomenon which has not escaped the notice of any close student of the American child. But the causes of the phenomenon are not so patent. Is the formation of gangs a tendency deeply embedded in human nature, so that it would occur under favorable conditions anywhere? Or is the boys' gang a social institution like democratic government which seems natural and inevitable to us here in America, but which would be replaced by something quite different in a different land or age? To the writer's knowledge this question has never been attacked scientifically. Books of travel are not generally written by authorities on child psychology and the interesting question of the gang in other lands remains

unanswered. Even the anthropologists who make a business of observing customs with scientific care, have little to say about this subject. There are only a few scattered references, as far as the writer has been able to find, which concern the boys' gang among primitive tribes. Hose and McDougall, for example ('12, ii, 166) speaking of the Kayan of Borneo remark that at fifteen or somewhat earlier the boys are accustomed to spend their time together instead of among the family. But the question of the universality of the gang, as we understand it, remains an unattacked problem.

Whether or not social pressure is responsible for the very existence of the gang, it certainly modifies its organization. Puffer in his study of the gang used as subjects a number of boys in an institution for delinquents. As one reads the descriptions of the closely organized gangs which Puffer details, with their rules, their meeting places, their initiation ceremonies, one perhaps compares it with the more informal gangs of one's own childhood and wonders why Puffer's gangs had such elaborate organizations. May it not be that the fact that these boys were delinquents forced them to band together as a sort of self-defense against organized society? It has been the writer's observation that delinquent boys and boys in poorer districts tend to organize much more closely than the non-delinquent boys or boys from better neighborhoods. The more fortunate boys have more interests to distract them; and non-delinquent boys have no need of banding together. But the poorer boys in an uninteresting environment are apt to band together to seek excite-

ment and as the gang acquires a bad reputation they are more and more excluded from respectable companionship and 'thrown upon themselves.

The following account of the Young Iroquois gang is offered as an account of the sort of gang which the writer has observed among the boys in middle-class environment, none of the members showing any tendency to delinquency. The Young Iroquois represents a maximum of organization. The average boys' gang is not as well organized as this. But this particular gang has certain interesting features, even though it is somewhat too well organized to be typical.

The *Young Iroquois*. A number of adolescent boys had organized an informal athletic club called the "Iroquois A. C." It lasted several years and put a rather successful team in the field. Some younger boys followed the team around and envied their success. Finally they conceived the idea of organizing a club of their own, which they accordingly did and named themselves, in imitation of the older boys, the "Young Iroquois." The membership of the gang was variable. Some joined during the baseball or football season and left as soon as athletics lulled. But there were six who stood by the gang throughout the three or three and a half years of its existence and these six formed the real gang. The rest were merely associate members, so to speak. At the time the gang was founded these six boys ranged in age from $9\frac{1}{2}$ to 11. So the life of the gang corresponded at least roughly to the duration of what we have called the age of preadolescence in these boys.

The gang have had officers, regular meetings and dues. All this without any adult assistance. They practiced baseball and football with each other constantly. One summer their team won five baseball games and lost none. About two years after inception they all entered a troop of Scouts and continued their existence there as a very active patrol. A year or so later they began to disorganize. Four of the boys had graduated from school and were now going to three different high schools. They began to get too old for Scouting and so the gang died a natural death.

Leo is the natural leader of the gang. He manages all the teams and new ideas about the gang's activities generally originate with him. But he is a tactful leader. He knows how to stay in the background and lead without seeming to lead. A boy who can manage a boys' baseball team is no mean diplomat. It is significant that Leo has the highest IQ of any of the boys in the gang. He scored 120 IQ on the Stanford Revision.

Leo's lieutenant and closest friend and the last president of the club is Sydney. He is quiet, not very self-assertive and passionately fond of athletics.

Fred and Arnold are a pair of chums who have always been loyal to the gang and played on its teams. Fred is an introvert type, mingling little with other boys, except with this particular gang. Arnold is more self-assertive. He was chosen Patrol Leader of the Scout Patrol to which all the boys in this gang belonged. Irving and Emil complete the roster of the gang.

Sheldon classified gangs according to their activities as (1) secret clubs (2) predatory organizations (3) social clubs (4)¹ industrial associations (5) philanthropic associations (6) literary, artistic and musical organizations (7) athletic clubs. Among boys' clubs the athletic clubs are immensely the most popular with predatory organizations a poor second. All other kinds of organizations, he finds, are together only one-third as frequent among boys as these two. The Young Iroquois gang is therefore typical. Its predominant activity is athletics. During the height of the baseball or football season the same boys meet day after day on a vacant lot to play their games. A minor activity was going off to some neighboring woods and there smoking, a thing strictly forbidden in all their homes. The secrecy and adventure of this experience lent it a touch of romance. This particular activity of the members never reached the ears of their respective families.

It is interesting to inquire what precise factors bring a particular group of boys together. It is easy to name at least five important ones, age, intelligence, common environment, common interests and common moral standards. These will be considered separately.

1. *Age.* It does not require very close observation to see that boys of an age tend to stay together. Among other things, this must be due to the fact that tastes vary with age and that boys of the same age are likely to have the same tastes. The Young Iroquois were all within twenty months of each other in age.

2. *Mental Age.* Several studies have shown that there is a tendency among boys to seek companions of

the same degree of intelligence as themselves. Almack ('22) studying a group from grades four to seven found that the IQ's of chums showed a correlation varying from .30 to .41. Warner ('23) reports that mental level seems to be one of the most important influences in the formation of gangs. Williams ('23) reports MA an important factor in choosing friends. One would expect this to be so. Boys of different intelligence levels enjoy different jokes, have different interests and even speak a different language. It would be surprising if they chose each other for chums. The IQ's of the Young Iroquois were 120, 117, 116, 110, 108 and 101, showing a noticeable uniformity.

3. *Common Environment.* All the Young Iroquois lived within a radius of about a hundred yards and all went to the same school and were all in either of two successive grades. When some of the boys graduated from the grammar school and went to different high schools the life of the gang declined abruptly. The essence of the gang seems to be that the members shall see each other daily or almost daily. This is, of course, immensely facilitated when the members go to the same school or live in the same neighborhood.

4. *Common Interests.* Whatever a gang does it does as a unit. It is not like an adult club which one man may join to play cards, another to use its billiard room while another is attracted by the club's gym. A boys' gang does only one thing at a time and all the members do that. If it is athletic, then all play; if it is predatory, then all steal. The Young Iroquois were athletic and their gang life was much attenuated dur-

ing the off seasons when they could put no teams in the field. It is obvious that membership in a gang is not very attractive to a boy unless he shares the gang's tastes. So community of interests is a strong factor in the formation of a gang.

5. *Common Moral Standards.* This is a corollary of the last. A member must adapt himself to the gang's moral standards or get out. For the gang's activities are common activities and it can brook no exceptions. Most gangs which have been studied are bad gangs. They forced themselves on the attention of psychologists when the members came to court. This must not blind one to the fact that the average gang, like the average boy, is generally praiseworthy from a moral standpoint, though his standards are not the adult's standards.

It is a most interesting psychological fact that the gang together will do things which the individual members will not do alone. This phenomenon is not peculiar to boys' gangs. It is true also of armies, mobs and legislatures. Gang psychology is crowd psychology.

On this point a quantity of experimental evidence is being accumulated. Triplett ('97) experimented with 40 children and found that they could turn fishing reels faster in competition than when alone. Mayer ('03) used five kinds of psychological tests with a group of 14 boys. A test of each sort was given to each boy separately and to all the boys together. He found that with the instruction to work "quickly but well" the boys worked faster and more accurately together than alone. Schmidt ('04) found less errors in tasks done

in school with other children present than in the same sort of task done at home. Allport ('20 and '24) found faster work in his subjects when they were together than when alone. But reasoning was poorer. Moede ('14) reported that boys made better scores in tapping and grip tests when in competition than when alone. Whittemore ('24) found that a group of 12 college men did better work in competition than when together but with no competitive stimulus.

The net result of these experiments is that action, particularly overt action, is increased in quality and quantity by the mere presence of others even when, as in Allport's experiments, the competitive factor is minimized. This fact has been called *social facilitation*.

Moede, in the experiments referred to above, found that boys working together made better scores than when working alone. But this was only true of the group as a whole. If individual scores were considered, it was found that the better boys made poorer scores when working with the others, while the poorer boys made better scores. That is, the fact of working together improved the low scores but lowered the high scores. But the low scores were improved more than the high scores were lowered, which accounts for the improvement of the group as a whole. There was a tendency of all to approach a common level. The same fact received interesting confirmation from some work of Allport, who required his subjects to judge of the pleasantness or unpleasantness of odors and to judge weights, when alone and when with others. He found a decided tendency to avoid extremes of judgment

when others were present. For instance, when working with others present the subjects judged the heavy weights to be lighter and the light weights to be heavier than when working alone. This tendency to avoid extremes and conform to a common level when others are present is called by Allport the *conservatism of the crowd man*.

A third interesting characteristic of the crowd which has not been experimentally verified is the changed moral standard of the crowd. Whether we realize it or not, the opinion of others is one of the strongest sanctions of the moral code. A boy walking down the street feels a strong temptation to throw a stone through a street light. But immediately disturbing images flash through his mind. He thinks of his mother and father who taught him to respect the property of others. He thinks of his teacher who reiterated the same lesson. He thinks of his companions among whom it is not customary to break street lights. He thinks of the community at large which, through the medium of the police, expresses a strong disapproval of such an act. To break the light would be to place himself in opposition with all his social world and so he desists. But suppose he is with a group of boys and one or two of them throw a stone at the light. Immediately the situation is changed. He sees with his own eyes that the boys in his immediate gang approve of this act. Instead of incurring social disapproval he will merit social approval if he breaks the light. The mere imaginal disapproval of parents and teachers is too abstract and hazy to withstand the concrete approval,

of his immediate neighbors. And so he breaks the light.

These three facts of social facilitation, crowd conservatism and crowd moral standards will explain much of gang psychology. The first makes the boy in the gang act more quickly and intensely than he would act alone. The second tends to make all the members of the gang do the same things and adopt the same attitudes. The third tends to substitute the average morality of the gang for the individual moral standards of the members.

The psychology of the gang must be considered in organizing clubs for preadolescent boys. There are two somewhat different theories about the organization of boys' clubs. One is the mass idea, the other the group idea. A mass club is one in which all the members are handled together. In the group club, on the other hand, the members are divided into smaller groups which are treated separately. The most successful embodiment of the group idea is perhaps the Boy Scout plan. The membership of the troop is limited to 32 and these 32 boys are further divided into patrols of eight each. As Puffer remarks, "Other organizations have built themselves around gang elements. The Boy Scout Patrol alone is the gang." It would seem that adults would do well to keep this principle in mind when organizing boys' clubs. Boys divide naturally into small groups or gangs. The psychology behind the group club idea, which takes this fact into account, would seem to be the right one.

SUMMARY. Boys of all ages associate with one

another; but during the preadolescent period the association takes a characteristic form which we speak of as the gang. The psychological reasons for this are obscure. Gangs exist in all degrees of organization. Age, intelligence, community of environment, interests and moral standards are probably the most important factors in determining what boys shall belong to what gangs. Boys act differently when with the gang than when alone. The phenomena of social facilitation, crowd conservatism and change of social sanction are factors in this. The psychology of the gang must be considered by adults who would organize successful clubs for boys.

BIBLIOGRAPHY

Sheldon ('98), Puffer ('12) and Hartson ('11) are the classic references on the psychology of the gang. Almack ('22) and Warner ('23) have studied the influence of intelligence level on the selection of associates. Various studies of delinquency contain interesting observations about boys' gangs, but unfortunately these are hardly typical. Allport ('24) is the best reference on the psychology of the group in general. He summarizes the literature very well.

CHAPTER XI

THE BOY AND THE COMMUNITY

The social environment of the growing boy is not restricted to merely the home and the gang. He is a citizen of a larger community and from the very moment of his birth this larger community is modifying the boy's environment and influencing his future. The state watches over his physical well-being and the church has his spiritual welfare at heart. Then there are social groups of minor importance, recreational organizations, fraternal societies, private schools, social agencies, each of which may have some influence on the boy. The present study would be incomplete without some brief review of the principal ways in which these various groups may affect the child.

1. *Education.* Before taking his place in adult life the boy must acquire certain skills which will vary with the nature of the community. Among primitive peoples these skills will include ability in hunting, fishing, or agriculture according to the way the community seeks its food, together with a knowledge of warfare and the religious lore and ritual of the tribe. These things are learned from the elders with a minimum of formal instruction.

In a more advanced civilization such as our own, however, much more than this is necessary. A boy

would enter our modern world severely handicapped without certain fundamental skills, the ability to read, to use his native language correctly, to write legibly and at a fair rate of speed, to solve the more common problems of arithmetic. Besides these skills, the fullest enjoyment of life supposes some acquaintance with peoples of other lands and of other times, some insight into the ways of modern science and some slight appreciation of the fine arts. It is no longer possible to teach these things efficiently at home, so the parents delegate their natural office to a large group, whether to the state in the case of the public school, or to the church in the case of a parochial school.

Modern educators are inclined to take a rather broad view of the school's function. Not only must it fulfill its obvious duty of teaching what are ordinarily called "school subjects" but it must take its part in various community movements.

For example, the school has done a great deal in the public health movement and it is constantly taking a larger and larger part. The desirability of regular medical inspection in the school to check the spread of contagious diseases and to provide for the correction of remediable physical defects has long appealed to thinking men. As early as 1833 provisions for medical inspection were passed in France. In 1874 Brussels inaugurated the first modern system of medical inspection; but it was not until 1894 that Boston introduced the first regular system of medical supervision in this country. Up-to-date schools now have a thorough medical inspection of their pupils, with

cursory examinations by a nurse or physician at shorter intervals. In the best systems a school nurse visits the homes and induces the parents to carry out the physician's recommendations.

The school can do a great deal in teaching health habits. Modern health curricula aim to make habits of personal hygiene attractive to the children by introducing competitive elements and making health a game. The school also furnishes a convenient way of reaching all the children of a community for purposes of immunization against contagious diseases. Vaccination against smallpox, the Schick test and toxin-antitoxin treatment for diphtheria and the newly developed Dick test for scarlet fever can be conveniently administered to the children through the school.

The unadjusted school child is a problem which the school cannot neglect. Hopkins ('24) in a study of 1200 continuation school pupils in Massachusetts and 1980 school children of comparable age, found that economic pressure and a genuine desire to go to work play little part in making children leave school. The most common factor was inability to do the work of the school. The average intelligence of the pupils who had left school was two years and a half below the average of the group which stayed in school. A striking exception to this generalization was furnished by a small number of children of very high intelligence who had left school because they found it uninteresting. In other words, a great many children leave school because they find it too hard and a few others because they find it too easy. This is a challenge to the school

to make its curriculum more flexible so that bright and dull may still find work there suited to their capacity. The details of this adjustment may be left to the educators; but the results of maladjustment furnish problems for the sociologist.

Still another function which the modern school is assuming is the training for citizenship. This must not be limited to such formal instruction in the ideals and history of one's country as is taught in the history or geography class. The modern school pupil learns to do by doing. He learns to take his place as a citizen of his country by first becoming a citizen of his school. Especially in some junior high schools, this has been worked out successfully through the socialized recitation, the school assembly, the "school city" and various school organizations and group clubs.

2. *The Child and Industry.* The community has two duties toward the child in industry. It must prepare the child, at least in a general way, to take his place in industry by means of vocational training. Secondly, it must see that the child is not exploited by greedy employers and this it does through child labor legislation.

Authorities are not altogether agreed about the amount of vocational training which the school can give efficiently. Some would limit the rôle of the school to instruction of the most general sort, mechanical drawing, business arithmetic and subjects of that nature. These educators assume that industry itself is in a better position than the school to give detailed instruction. Another group would have the school give

more detailed and specific instruction with the ideal of making the graduating pupil able to take his place in the trades with a minimum of further instruction. Local conditions will play a large part in determining which scheme to follow.

Closely related to the vocational training is the subject of vocational guidance. Maximum efficiency demands not only that the pupil shall be well trained for the job, but that he shall pick the right job. Our most progressive school systems begin vocational guidance in the grammar grades with instruction about the nature of industry and the functions of the various trades and professions. The junior high school is pre-eminently the place for vocational guidance. "Exploratory" courses are offered in which the pupil may try his hand at various lines of work with a view to making an intelligent choice of a vocation. Sometimes interviews with a vocational counsellor who has studied the boy's abilities by psychometric tests aid him in his choice. Finally, even after the boy has left school, some progressive schools keep in touch with him, particularly where the part-time continuation school is in operation and by visiting the boy and his employer a favorable adjustment is secured.

All the states now have more or less satisfactory legislation regulating the labor of children in such respects as the minimum age for entering employment, educational requirements for children entering employment, physical examination of these children, minimum age for work in certain laborious occupations, length of working day, number of working hours per

week, prohibition of night labor and regulation of work in street trades. Two federal child labor laws, passed September 1, 1916, and February 24, 1919, which attempted to set up minimum standards for the whole country were held unconstitutional by the United States Supreme Court. Apparently there is no way of passing federal legislation in this important matter except through the passage of the Child Labor Amendment which is now before the states for ratification.

3. *Recreation.* The interest of the community in recreation is a comparatively new development. Even a generation ago children were considered quite capable of managing their own recreation without adult assistance. But times have changed. Woods and fields, the natural playgrounds of childhood, have retreated before the advance of the city, until the modern city child is unusually lucky to find even a vacant lot to play in. Whatever we may think about the subject from a theoretical standpoint the fact remains that the modern city child, left to himself, is remarkably little able to find healthy amusement. A number of recreation surveys report that about half the children observed on the city streets were simply idling.

This is a dangerous situation. Modern social studies have confirmed the truth of the old maxim that the Devil finds work for idle hands. The realization of this truth has led to a growing movement to give the children a chance to play.

Cities now take a system of playgrounds as a matter of course. They should be located at convenient

intervals throughout the city. Young children should not be expected to go more than a quarter of a mile from their home to the playground.* Children from 6 to 12 will go half a mile. One hundred square feet of space for each child who uses the playground at once is a reasonable minimum standard for playground size. The playground must be equipped for the needs of children of different ages and sexes. A popular arrangement is the three-part division where the older boys, older girls, and younger children of both sexes form three divisions which are handled separately. It is an axiom that a poorly supervised playground is worse than no playground at all. The success of the work depends on a well-trained personnel. Efficient and interested playground workers are more important than elaborate apparatus.

The school cannot but be interested in the recreation problem. Supervised play at recess, supervised school playgrounds for after-school hours and classroom games appear in the program of our best schools. For older children, in junior high schools and senior high schools, clubs and interscholastic athletics figure. Interscholastic competition has perhaps been carried to excess in the past. Happily there is now a tendency to substitute the ideal of having all the pupils in the school participate in athletics for the old ideal of turning out a winning team.

The Church, too, cannot afford to neglect the problem of recreation. From its very nature the Church is committed to an interest in all the moral problems of its members and recreation is a concern most inti-

mately bound up with the moral welfare of children. Recreation centers, clubs, gym work, playgrounds, field days and athletic teams are some of the ways in which the church can make its influence felt in the recreational life of the child.

The last dozen years or so have seen the growth of national organizations devoted to the recreational interests of boys. The Boys' Club Federation is an organization of permanent boys' clubs. These are large city clubs with permanent headquarters and trained workers. A well-equipped boys' club presents a surprising variety of activities to its members, including gym work, group clubs, educational features, game rooms, athletic teams, summer camps and supervised playgrounds.

The Boy Scouts of America is an organization for boys of 12 and upward. It lays a minimum of emphasis on buildings and a maximum on leadership. Unlike the typical boys' club, the Scouts rely almost exclusively on volunteer leadership. The key man of the movement is the Scoutmaster with his troop of a maximum of 32 boys. The lads meet regularly and together with him they work out the Scout program which leads through the ranks of Tenderfoot and Second-class Scout to the rank of First-class Scout. After this there is open a program of merit badge work with a great deal of room for individual preference. The Scout program emphasizes out-of-door life. Besides the standard program, Scoutmasters are encouraged to develop features of their own.

Other less well known national organizations similar

in some degree to the Scouts include the Boy Rangers for younger lads, the Woodcraft League, and the Catholic Boys' Brigade. The Y. M. C. A. has a boys' work program of its own which is used with considerable success. The Wolf Cubs, a younger boy organization similar to the Scouts, has never been developed in the United States on a national scale, but it has been employed as a successful program by individuals

4. *Delinquency.* For a long time the conviction had been growing that juvenile delinquency presented a problem separate from adult crime. Humane judges tried to treat juvenile offenders with understanding and consideration. But it was not until the passage of the Illinois act of 1899 that the juvenile court, in the modern sense, came into being. Our best juvenile court laws now give the court chancery jurisdiction. The offending child is looked on not as a criminal but as one in special need of intelligent supervision. The court uses the technique of the modern social case working agency to study the home conditions and calls on the physician and the psychiatrist to study the physical and mental make-up of the child. The judge is less concerned with the punishment of the offense than with the removal of the underlying factors which might cause its repetition. A probation system makes possible the carrying out of the court's recommendation. Provisions for the avoidance of undue publicity, for the detention of children apart from adults, and for an informal court procedure, are humane features common to our better juvenile courts.

While the juvenile court has provided a better method of handling the child the child-welfare clinic has provided a better method of understanding the offender, particularly where there is a question of defect of personality. Healy was the pioneer in this, by his work with the Chicago juvenile court and later at the Judge Baker Foundation in Boston. Our best courts have available facilities for making personality studies of the children sent before them and the method is proving surprisingly efficient.

5. *Dependency.* When death of parents or the breakdown of the family has deprived a child of a suitable home the care of the child devolves on the community, whether it be the church, some private welfare agency, or, as a last resort, the state.

Our methods of caring for the dependent child have undergone radical changes in the last few years. In the first place, it is now pretty generally admitted that not even the best institution can rival the child's own home except in rare instances where the home is utterly hopeless. Except for these instances the child is better off in his own home, though that home leave much to be desired, than in the very best institution. No well-managed social agency would consent to see a child removed from its home and placed in an institution until it had done everything possible to rehabilitate the home and make it a fit place for the child to live.

Even when it appears necessary to remove the child from its own home, it does not follow that it should be placed in an institution. There is the possibility of

placing it with relatives or, if that fails, of putting it in a *boarding-home*, that is, in a private family where its board will be paid. The institution is a last resort.

Even in the institution an effort is being made to make conditions approximate home life. This is done through the group plan. A group of children, which should never be more than 25 or 30, lives together constantly, eating in the same dining room, sleeping in the same dormitory and playing in the same place. The same supervisors are in charge of the same group constantly. This makes it possible for the supervisors to know the children well as individuals and something like home life is established. The cottage plan is a further development of the group plan. The children of a group not only live together but they live in a separate building or "cottage." This seems the nearest approach to family life possible in an institution.

There are some classes of children who can be cared for better in an institution than in a private family. These children include the various sorts of defective, the deaf, the blind, the feeble-minded. Here the necessity of a particular kind of specialized care which could hardly be given in a private family outweighs the disadvantages of institutional life. Then, of course, there is a certain class of delinquents which must be subjected to custodial care.

The aim of our best institutions for defectives is to make the children, if possible, take their places in the community. With an intelligent parole system and good follow-up work, an institution is often able to

place even rather low-grade feeble-minded in the community where they can work at simple trades and maintain their self-respect to a degree impossible in an institution.

6. *Religion.* The boy's highest duty is the duty he owes to God, and his success or failure in life must ultimately be measured by this standard. The Church with the consciousness of this fact cannot neglect her duty toward the boy in his plastic years when character is formed for better or for worse. In this field the writer's experience is limited to Catholic boys; so he can speak with assurance only about the methods used with them.

The Catholic religion is essentially a sacramental religion and the individual's progress is measured by the degree in which he succeeds in uniting himself to God through the frequentation of the Sacraments and through the constantly exercised effort to follow the Divine Will which this implies.

This calls, first of all, for religious and moral instruction. The mother looks upon her duty of imparting this instruction to the young child as a most sacred duty. But home instruction is not sufficient. The best Sunday School is only a makeshift. Catholics have been consistent in their attitude that the child's education must be religious in its aspirations, not only on Sunday but every day.

Each age of boyhood has its religious peculiarities, just as it has its peculiarities along other lines. What are the particular characteristics of the preadolescent? The writer twice gave a series of religious exercises.

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known as a *retreat* to the group of preadolescents studied here, and afterwards an attempt was made to learn the reaction of the boys by compositions which they were asked to write about it. The following were the salient points of the results:

(1) The preadolescent does not seem to be much moved by the personal love of Christ as the older boy is. A sermon on the love of God was mentioned only four times in a series of compositions, as against 29 mentions of a sermon on sin.

(2) The preadolescent has a very vivid sense of sin. Religion with him is less likely to be a matter of sentiment and feeling than a practical matter of self-improvement. This is certainly a point in favor of the preadolescent.

(3) The preadolescent loves the concrete in sermons. The writer ranked a series of a dozen sermons which he gave to the group and then had the boys rank them. The correlation was only .50. On further analysis it appeared that this was due to the fact that the writer did not realize the appeal which stories and concrete applications have.

(4) The preadolescent is much influenced by the crowd spirit. Religious exercises held in common with other boys gain immensely in power.

(5) The preadolescent is reached by ritual, music and such overt appeals. He lives in a world of the concrete and only the concrete appeals to him.

The study of childhood is the key to the future. Vast social problems which will not yield to the efforts

of reformers nor to the enactments of legislators can be cured by turning our attention to the coming generation and starting them on the road of life aright. This needs patient, careful study. It needs insight and sympathy. It needs hard work. But it is worth it, a thousand times worth it, and the future shall be our reward. The present century is often called the "Century of the Child." If the present generation can merit this title, it will be to our everlasting glory. For with the child lies our hope.

BIBLIOGRAPHY

The literature on education is, of course, very extensive. But it will be worth while to mention Pechstein ('24) for a good summary of modern educational methods as they apply to children of this particular period. Terman ('14) is excellent for the hygiene of the child. Bancroft ('13) has a good book on the posture of children. Methods of determining nutrition from height, weight and age have been much used recently, but their validity is questioned. See good discussions in Baker ('23), Clark ('22) and Dublin ('24). • McCollum ('22) and Emerson ('22) are standard works on nutrition. The Public Health Service has some excellent studies on school hygiene. See Clark ('22) on correction of defects and Stiles ('15) on sanitary conditions.

Coe ('19) and Kirkpatrick ('19) treat the function of the school in training for citizenship. The latter, particularly, is a standard reference. Davis ('20), Fretwell ('19) and Caldwell ('20) report practical results. Fretwell ('23) has a bibliography on extra-curricular activities. Foster ('25) treats high school activities.

Probably the best single reference on vocational edu-

cation and vocational guidance is the second part of the 23rd Year Book of the National Society for the Study of Education. Kornhauser ('22) gives an excellent summary of the psychological aspects of the subject up to that date. Toops ('21 and '23) makes a very careful study of certain psychological tests for guidance, which apply particularly to this period. Bawden ('19) has a pamphlet on the Army trade tests. Fryer ('22) publishes some occupational intelligence standards. Leaming ('23) has norms for the 15-year level. Gambrill ('22) studies the correlation of college grades and success in life. Fryer ('23), Feingold ('23) and Burnett ('24) have other studies on the general question of intelligence and occupation. Bingham ('24) studies the relation of intelligence to business success and finds the relation less close than was expected. Franklin's ('24) study of the permanence of the vocational interests of junior high school pupils cannot be overlooked.

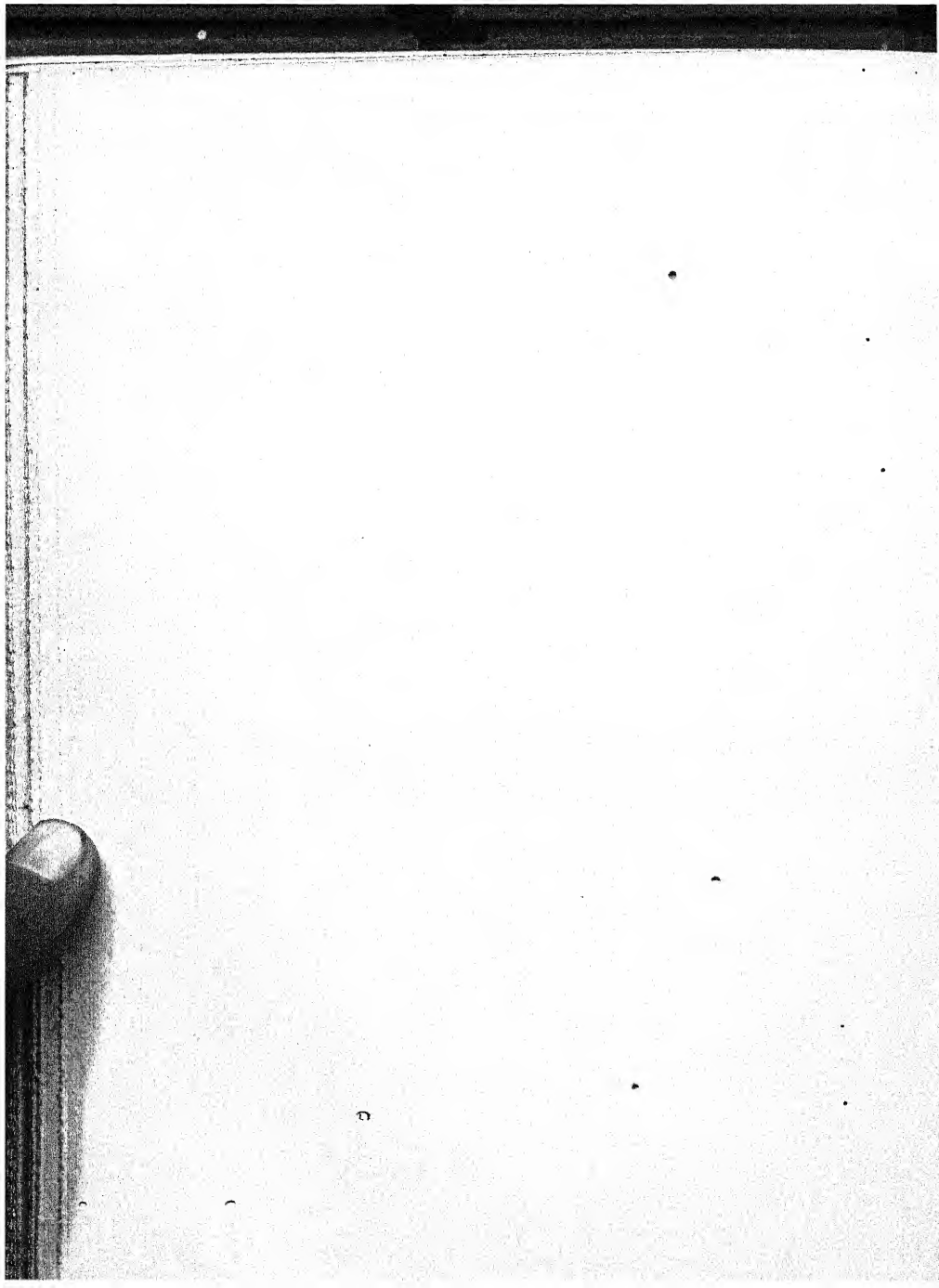
Those who may be interested in the theory of play—a subject not treated in this study—will find the following list of references useful: Schiller's *Letters on the Aesthetic Education of Man*, numbers 15 and 27; Spencer's *Principles of Psychology*, part IX, chapter IX; Groos ('98 and '01, Hall ('04, i, pp. 202-236), Patrick ('16), Appleton ('10), Gulick ('20), McDougall ('21 and '23), Rainwater ('24). For a treatment of the general value of play, see Curtis ('15 and '17) and Lee ('15). McKenzie ('15) treats of the physiology of exercise. Among the many practical books of games it is sufficient to mention Bancroft ('09), the standard reference, and Smith ('24), a recent book which is probably the best practical guide available for those who have to deal with boys of this age. The Playground and Recreation Association of America ('24) publishes the best book on the organized camp. Those who wish to learn more about the various national recreation organizations can consult their handbooks. The Boy Scouts' *Official*

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Handbook for Boys is a mine of information for leaders of any sort of boys' club.

For the legal aspect of the juvenile court a number of monographs published by the Children's Bureau form perhaps the best introduction. See Flexner ('22), Chute ('21), Breckinridge ('20) and Belden ('20). For the psychological aspects of the delinquency, see a short pamphlet by Healy ('22). All the references quoted under this author are worth reading on the same subject. Blanchard ('24) is a short reference valuable for orientation. Lund ('18) is interesting as an entirely different approach to the problem.

For modern methods of dealing with dependent children see the U. S. Children's Bureau ('24) study of foster-home care. Theis ('24) has a very elaborate study about the after history of foster-home children. Nesbitt ('23) shows how "mothers' pension" legislation works out.



BIBLIOGRAPHY

- ABERNETHY, ETHEL M.: "Correlations of physical and mental growth"; *Jr. Ed. Psychol.*, 16:458-66, 531-46, 1925.
- ADLER, ALFRED: *Study of organ inferiority and its psychical compensation; a contribution to clinical medicine*. Tr. by Smith Ely Jelliffe, M.D.; New York, The Nervous and Mental Disease Publishing Company, 1917. x + 86 pp.
- ALLEN, WILLIAM ORVILLE: "Who shall go to college?"; *School and Society*, 19:230-32, 1924.
- ALLPORT, FLOYD HENRY: "Behavior and experiment in social psychology"; *Jr. Abn. Psychol.*, 14:297-306, 1919.
- "The influence of the group upon association and thought"; *Jr. Exp. Psychol.*, 3:159-82, 1920.
- *Social psychology*; Boston, New York (etc.), Houghton, Mifflin Company, 1924. xiv + 453 pp.
- "Social psychology"; *Psychol. Bull.*, 17:85-94, 1920.
- ALMACK, J. C.: "The influence of intelligence on the selection of associates"; *School and Society*, 16:529-30, 1922.
- ALMACK, J. C. and J. L.: "Superior types in high school"; *Educ.*, 42:352-58, 1922.
- ANDERSON, L. DEWEY: "Estimating intelligence by means of printed photographs"; *Jr. Apl. Psychol.*, 5:152-55, 1921.
- APPLETON, LILLA ESTELLE: *A comparative study of the play activities of adult savages and civilized children; an investigation of the scientific basis of education*; Chicago, The University of Chicago Press, 1910. vii + 94 pp.
- BADEN-POWELL, Sir ROBERT: *Scouting for boys; a handbook for instruction in good citizenship*; 10th ed. London, C. Arthur Pearson Ltd., 1922.
- *Scoutmastership, a handbook for scoutmasters on the theory of scout training*; American ed. New York and London, G. P. Putnam's Sons, 1920. viii + 184 pp.
- *The wolf cub's handbook*; New York, Boy Scouts of America, 1918. ix + 320 pp.
- BAKER, HARRY J.: "Objective measurements in educational and vocational guidance"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part II, 151-71, 1924.
- BAKER, S. JOSEPHINE: "School health supervision based upon age and sex incidence of physical defect"; *Am. Jr. Pub. Health*, 12:465-76, 1922.

- BAKER, S. JOSEPHINE and BLUMENTHAL, J. L.: "Methods of determining malnutrition"; *Nation's Health*, 5:47-50, 1923.
- BALDWIN, BIRD THOMAS: "A measuring scale for physical growth and physiological age"; *Fifteenth Yearbook of the Nat. Soc. for the Study of Educ.*, Part I, 11-23, 1916.
- "Methods of selecting superior or gifted children"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part I, 25-47, 1924.
- *The physical growth of children from birth to maturity*; Iowa City, The University Press, 1921. 411 pp.
- "The relation between mental and physical growth"; *Jr. Educ. Psychol.*, 13:193-203, 1922.
- BALDWIN, BIRD THOMAS and STECHER, LORLE I.: *The psychology of the preschool child*; New York and London, D. Appleton and Company, 1925. vii + 305 pp.
- BALLARD, P. B.: "The limit of growth of intelligence"; *Brit. Jr. of Psychol.*, 12:125-41, 1921.
- BANCROFT, JESSIE HUBBELL: *Games for the playground, home, school and gymnasium*; New York, The Macmillan Company, 1909. vii + 456 pp.
- *The posture of school children, with its home hygiene and new efficiency methods for school training*; New York, The Macmillan Company, 1913. xii + 327 pp.
- BARNES, EARL: "Children's Ideals"; *Ped. Sem.*, 7:3-12, 1900.
- BAWDEN, WILLIAM THOMAS: *The army trade tests*: United States Government Report (Bureau of Education. Industrial Education Circular No. 4, 1919). 28 pp.
- *Studies about occupations in public schools*; United States Government Report (Bureau of Education. Industrial Education Circular No. 16, 1923). 34 pp.
- BELDEN, EVELINA: *Courts in the United States hearing children's cases. Results of a questionnaire study covering the year 1918*; United States Government Report, Department of Labor (Children's Bureau Publication, No. 65, 1920). 115 pp.
- BENSON, J. R.: "A comparison of selected groups with mixed classes"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part I, 290-96, 1924.
- BERNARD, L. L.: *Instinct, a study in social psychology*; New York, Henry Holt and Company, 1924. ix + 550 pp.
- BIGELOW, MAURICE ALPHEUS: *Sex-education; a series of lectures concerning knowledge of sex in its relation to human life*; New York, The Macmillan Company, 1916. xi + 251 pp.
- BINGHAM, W. V. and DAVIS, W. T.: "Intelligence scores and business success"; *Jr. Apl. Psychol.*, 8:1-22, 1924.

- BISHOP, OMEN: "What is measured by intelligence tests?"; *Jr. Ed. Res.*, 9:29-38; 1924.
- BLANCHARD, PHYLLIS and PAYNTER, RICHARD H.: "Some findings in the clinical study of five hundred 'problem' children"; Paper read at 32d annual meeting of the American Psychological Association. Reported in *Psychol. Bull.*, 21:2, 1924.
- BOAS, FRANZ: "The growth of children as influenced by environmental and hereditary conditions"; *School and Society*, 17: 305-8, 1923.
- BONSER, FREDERICK GORDON: *School work and spare time*; (Cleveland Foundation Publications No. 28). Cleveland, The Survey Committee of the Cleveland Foundation, 1918. 176 pp.
- BOY SCOUTS OF AMERICA: *Community boy leadership; a manual for Scout executives*; 2d ed. New York, Pub. under the supervision of the Editorial board representing the National Council of the Boy Scouts of America, 1922. 622 pp.
- Handbook for scoutmasters; a manual of leadership, Boy Scouts of America*; 2d handbook, 5th imprint. New York, Pub. under the supervision of the Editorial board representing the National Council of the Boy Scouts of America, 1923. 632 pp.
- The official handbook for boys*; 31st ed. New York, The Boy Scouts of America, 1925. xiv + 512 pp.
- The seascout manual*; 5th ed. New York, Boy Scouts of America, 1925. vi + 505 pp.
- BRECKINRIDGE, SOPHONISBA PRESTON: *Family welfare work in a metropolitan community; selected case records*; Chicago, Univ. of Chicago Press, 1924. xvii + 938 pp.
- BRECKINRIDGE, SOPHONISBA PRESTON and JETER, HELEN R.: *A summary of juvenile-court legislation in the United States*; United States Government Report, Department of Labor (Children's Bureau Publication No. 70, 1920). 110 pp.
- BRONNER, AUGUSTA F.: *A comparative study of the intelligence of delinquent girls*; New York, Teachers College, Columbia University, 1914. v + 95 pp.
- BROOKS, FOWLER DELL: *Changes in mental traits with age determined by annual re-tests*; New York, Teachers College, Columbia University, 1921. 86 pp.
- BROWN, WILLIAM MOSELEY: "Character traits as factors in intelligence test performance"; *Arch. of Psychol.*, No. 65, 1923.
- "A study of the predictive value of certain kinds of scores in intelligence tests"; *Jr. Ed. Psychol.*, 15:448-61, 1924.
- BRYNE, MAY E.: "After-school careers of children leaving special classes in Minneapolis." *Ungraded*, 10:75-86, 1925.
- BUCKLEY, ALBERT COULSON: *The basis of psychiatry (psychobio-*

- logical medicine) a guide to the study of mental disorders for students and practitioners; Philadelphia and London, J. B. Lippincott Company, 1920. xii + 447 pp.
- BÜHLER, CHARLOTTE: *Das seelenleben des jugendlichen, versuch einer analyse und theorie der psychischen pubertät*; 2te Aufl. Jena, Gustav Fischer, 1923. x + 210 pp.
- BÜHLER, KARL: *Die geistige entwicklung des kindes*; 4te Aufl. Jena, Gustav Fischer, 1924. xx + 484 pp.
- BURDGE, HOWARD GRIFFITH: *Our boys; a study of 245,000 sixteen, seventeen and eighteen year old employed boys in the state of New York*; Albany, J. B. Lyon Company, printers, 1921. iii + 345 pp.
- BURKS, BARBARA S.: "A scale of promise and its application to seventy-one nine-year-old gifted children"; *Ped. Sem. and Jr. Gen. Psychol.*, 32:389-413, 1925.
- BURNETT, I.: "An experimental investigation of repetitive work"; *Jr. Nat. Inst. Indust. Psychol.*, 2:18-23, 1924.
- BURNHAM, WILLIAM H.: "The hygiene of sleep"; *Ped. Sem.*, 27:1-35, 1920.
- CADY, VERNON M.: *The estimation of juvenile incorrigibility; a report of experiments in the measurement of juvenile incorrigibility by means of certain non-intellectual tests*; (Journal of Delinquency Monographs, No. 2) Whittier, Cal., Whittier State School, 1923. 140 pp.
- "Psychology and pathology of personality"; *Jr. Delinq.*, 7:225-48, 1922.
- CALDWELL, OTIS W.: "Some factors in training for leadership"; *Fourth Yearbook of the Nat. Assn. of Secondary School Principals*, 2-13, 1920.
- CARMAN, E. KATE: Notes on school activity; *Ped. Sem.*, 9:106-17, 1902.
- CASTLE, W. E.: *Genetics and eugenics; a text-book for students on biology and a reference book for animal and plant breeders*; Cambridge (etc.), Harvard University Press, 1924. viii + 434 pp.
- CATTELL, J. McKEEN: "A statistical study of American men of science"; *Science*, 24:658-65, 699-707, 732-42, 1906.
- CHAPMAN, J. CROSBY and DALE, A. BARBARA: "A further criterion of mental test elements"; *Jr. Ed. Psychol.*, 13:267-76, 1922.
- CHUTE, CHARLES LIONEL: *Probation in children's courts*; United States Government Report, Department of Labor (Children's Bureau Publication No. 80, 1921). 32 pp.
- CLARK, TALIAFERRO: "Nutrition in school children"; *Jr. Am. Med. Assn.*, 79:519-24, 1922.
- CLARK, TALIAFERRO and BELL, ELIZABETH: *Correcting physical de-*

- fects in school children. A study of the result of the correction of certain physical defects on the growth and development of 146 school children in Baltimore, Md.; United States Government Report, Public Health Service (Reprint No. 742 from the Public Health Reports, 37:929-45, 1922). 17 pp.
- CLARK, TALIAFERRO, SYDENSTRICKER, EDGAR and COLLINS, SELWYN: *Heights and weights of school children. A study of the heights and weights of 14,335 native white school children in Maryland, Virginia, and North and South Carolina*; United States Government Report, Public Health Service (Reprint No. 750 from the Public Health Reports, 37:1185-1207, 1922). 36 pp.
- CLARK, WILLIS W.: "Home conditions and intelligence"; *Jr. Delinq.*, 7:17-23, 1922.
- CLAYTON, F. T.: "Home conditions of study and pupil-attitude toward school work"; *School and Society*, 17:221-22, 1923.
- CLEETON, GLEN U. and KNIGHT, F. B.: "Validity of character judgments based on external criteria"; *Jr. Apl. Psychol.* 8:215-31, 1924.
- CLEVELAND, E.: "Some further studies of gifted children"; *Jr. Ed. Res.*, 4:195-99, 1921.
- COBB, MARGARET V.: "The limits set to educational achievement by limited intelligence"; *Jr. Ed. Psychol.*, 13:449-64, 546-60, 1922.
- COBB, MARGARET V. and HOLLINGWORTH, LETA S.: "The regression of siblings of children who test at or above 135 IQ (Stanford-Binet)"; *Jr. Ed. Psychol.*, 16:1-7, 1925.
- COBB, MARGARET V. and TAYLOR, GRACE A.: "Stanford Achievement Tests with a group of gifted children"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part I, 275-89, 1924.
- COE, GEORGE A.: "The nature of discipline for democracy"; *Religious Educ.*, 14:136-47, 1919.
- COLVIN, STEPHEN S.: "Principles underlying the construction and use of intelligence tests"; *Twenty-first Yearbook of the National Soc. for the Study of Educ.*, Part I, 11-44, 1923.
- COLVIN, STEPHEN S. and ALLEN, RICHARD D.: "Mental tests and linguistic ability"; *Jr. Ed. Psychol.*, 14:1-20, 1923.
- COMPAYRÉ, GABRIEL: *L'adolescence, études de psychologie et de pédagogie*; 2 éd., Paris, Felix Alcan, 1910. 195 pp.
- COOK, R. R.: "A study of the results of homogeneous grouping of abilities in high-school classes"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part I, 302-12, 1924.
- COOPER, JOHN MONTGOMERY: "The leisure time of the school child"; *Cath. Char. Rev.*, 20:208-16, 1922.
- Play fair*; Washington, The Catholic Education Press, 1923. vii + 246 pp.

- "Sex teaching in the home"; *Cath. Char. Rev.*, 5:217-22, 1921.
- "Sex training in the home"; *Cath. Char. Rev.*, 5:321-26, 1921.
- "Too much club?" *Cath. Char. Rev.*, 7:122-25, 1925.
- COY, GENEVIEVE LENORE: *The interests, abilities and achievements of a special class of gifted children*; New York, Teachers College, Columbia University, 1923. v + 195 pp.
- CRAMPTON, CHARLES WARD: "Anatomical or physiological age versus chronological age"; *Ped. Sem.*, 15:230-37, 1908.
- "The influence of physiological age upon scholarship"; *Psychol. Clinic*, 1:115-20, 1907.
- "Physiological age—a fundamental principle"; *Am Phys. Educ. Rev.*, 13:144-54, 214-27, 268-83, 345-58, 1908.
- "The significance of physiological age in education"; *Trans. Fifteenth Internat. Congress on Hyg. and Demography*, 3:224-36, 1913.
- CURTIS, HENRY STODDARD: *Education through play*; New York, The Macmillan Company, 1915. xix + 359 pp.
- *The play movement and its significance*; New York, The Macmillan Company, 1917. xv + 346 pp.
- DAVIS, C. O.: "Training for citizenship in the North Central Association of Secondary Schools"; *Fourth Yearbook of the Nat. Assn. of Secondary School Principals*, 45-64, 1920.
- DAVIS, HELEN: "Personal and social characteristics of gifted children"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part I, 123-44, 1924.
- DEARBORN, WALTER F.: "The intelligence quotients of adults and related problems"; *Jr. Ed. Res.*, 6:307-25, 1922.
- "Some problems of research in education"; *School and Society*, 17:673-77, 1923.
- DEXTER, EMILY S.: "On family resemblance beyond the first degree of relationship"; *School and Society*, 19:501-2, 1924.
- DOHERTY, MARGARET and MACLATCHY, JOSEPHINE: *Bibliography of educational and psychological tests and measurements*; United States Government Report, Department of the Interior (Bureau of Education Bulletin, 1923, No. 55). ix + 233 pp.
- DOLL, EDGAR A.: "The average mental age of adults"; *Jr. Apl. Psychol.*, 3:317-28, 1919.
- "The growth of intelligence"; *Psychol. Monog.* Whole No. 131, 1921. vi + 130 pp.
- DRUCKER, SAUL and HEXTER, MAURICE BECK: *Children astray*; Cambridge, Harvard University Press, 1923. xxiv + 421 pp.
- DUBLIN, LOUIS I. and GEBHART, JOHN C.: *Do height and weight tables identify undernourished children?* New York, The New York Association for Improving the Condition of the Poor, 1924.
- 23 pp.

- DUGDALE, RICHARD LOUIS: *"The Jukes"; a study in crime, pauperism, disease, and heredity*; 5th ed. New York and London, G. P. Putnam's Sons. 1895. vii + 120 pp.
- DVORAK, AUGUST: "The relation of IQ to the prognosis of special class pupils"; *School and Society*, 19:736-44, 1924.
- ECOB, KATHERINE G.: "Mental defectives in the community"; *Ungraded* 9:125-32, 1924.
- EDGERTON, A. H.: "Outstanding tendencies in industrial and part-time education in one hundred forty-three cities"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part II, 201-27, 1924.
- EDGERTON, A. H. and CUNLIFFE, R. B.: "A public school program for collecting and using occupational information"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part II, 119-38, 1924.
- EDGERTON, A. H. and HERR, L. A.: "Present status of guidance activities in public schools"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part II, 3-27, 1924.
- ELDERTON, W. PALIN: *Frequency curves and correlation*; London, Layton, 1906. xiii + 172 pp.
- EMERSON, WILLIAM ROBIE PATTEN: *Nutrition and growth in children*; New York, London, D. Appleton and Company, 1922. xxix + 341 pp.
- ENGEL, ANNA M.: "Comparison of class ratings of pupils in special advanced classes with accelerated pupils in regular classes in the Detroit public schools"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part I, 297-301, 1924.
- ENGLEHARDT, J. L.: "A test for physical efficiency; the correlation between results therefrom and results from tests of mental efficiency"; *Jr. Ed. Psychol.*, 15:537-78, 1924.
- FABRE, JEAN-HENRI: *Les merveilles de l'instinct chez les insectes: morceaux choisis des Souvenirs Entomologiques et histoires inédites du ver luisant et de la chenille du chou*; Paris, C. Delagrave, 1913. ii + 271 pp.
- FEINGOLD, G. A.: "Intelligence and persistency in high-school attendance"; *School and Society*, 18:443-50, 1923.
- "The relation between the intelligence and vocational choices of high school pupils"; *Jr. Apl. Psychol.*, 7:143-53, 1923.
- FERNALD, G. G.: "The defective delinquent class: differentiating tests"; *Am. Jr. Insanity*, 68:523-94, 1912.
- FISHER, ARNE: *Mathematical theory of probabilities and its application to frequency curves and statistical methods*; tr. by Charlotte Dickson and William Bonyngue. 2d ed. New York, The Macmillan Company, 1922. xxix + 289 pp.

- FISKE, GEORGE WALTER: *Boy life and self-government*; New York, Young Men's Christian Association Press, 1910, 310 pp.
- FLEXNER, BERNARD and OPPENHEIMER, REUBEN: *The legal aspect of the juvenile court*; United States Government Report, Department of Labor (Children's Bureau Publication No. 99, 1922). 42 pp.
- FORBUSH, WILLIAM BYRON: *The boy problem*; 4th ed.—rewritten, Boston, New York (etc.), The Pilgrim Press, 1907. 219 pp.
- FOSTER, CHARLES R.: *Extra-curricular activities in the high school*; Richmond, Va., Johnson Publishing Company, 1925. xxi + 222 pp.
- FOSTER, W. L.: "Physiological age as a basis for the classification of pupils entering high school"; *Psychol. Clinic*, 4:83-88, 1910.
- FRANKLIN, EDWARD EARLE: *The permanence of vocational interests of junior high school pupils*; (The Johns Hopkins University Studies in Education No. 8). Baltimore, The Johns Hopkins University Press, 1924. vii + 64 pp.
- FRANZEN, RAYMOND: "The geography of intelligence"; *Jr. Ed. Psychol.*, 15:499-512, 1924.
- FRETWELL, ELBERT K.: "Education for leadership: training citizens through recreation"; *Teachers Coll. Rec.*, 20:324-52, 1919.
- "Extra-curricular activities of secondary schools"; *Teachers Coll. Rec.*, 24:60-72, 147-58, 1923.
- FREYD, MAX: "The graphic rating scale"; *Jr. Ed. Psychol.*, 14:83-102, 1923.
- "The personalities of the socially and mechanically inclined. A study of the differences in personality between men whose primary interest is social and men whose primary interest is in machines"; *Psychol. Monog.* Whole No. 151, 1924. vi + 101 pp.
- FRYER, DOUGLAS: "Intelligence and interest in vocational adjustment"; *Ped. Sem.*, 30:127-51, 1923.
- "Occupational intelligence standards"; *School and Society*, 16:273-77, 1922.
- "The significance of interest for vocational prognosis"; *Mental Hygiene*, 8:466-505, 1924.
- FURFEY, PAUL HANLY: "Character training and the Scout idea"; *Cath. Char. Rev.*, 7:85-87, 1923.
- "The problem of recreation particularly as it affects child-caring institutions"; *Proceedings of the Ninth Session of the Nat. Conf. of Cath. Charities*, 311-15, 1923.
- "Some recent child study"; *Cath. Char. Rev.*, 9:45-50, 205-8, 1925.
- "Where gifted children learn"; *Cath. Educ. Rev.*, 23:465-72, 1925.
- GALTON, SIR FRANCIS: *Hereditary genius; an inquiry into its laws*

- and consequences.* London, Macmillan and Company, 1869. vi + 390 pp.
- GAMBRILL, BESSIE LEE: *College achievement and vocational efficiency*; New York, Teachers College, Columbia University, 1922. vii + 100 pp.
- GARRISON, CHARLOTTE G., BURKE, AGNES and HOLLINGWORTH, LETA S.: "The psychology of a prodigious child"; *Jr. Apl. Psychol.* 1:101-10, 1917.
- GATES, ARTHUR I.: "The correlation of achievement in school subjects with intelligence tests and other variables"; *Jr. Ed. Psychol.*, 13:129-39, 223-35, 277-85, 1922.
- "Educational significance of physical status and of physiological, mental, emotional and social maturity"; *Teachers Coll. Rec.*, 25:223-239, 1924.
- "The nature and educational significance of physical status and of mental, physiological, social and emotional maturity"; *Jr. Ed. Psychol.*, 15:329-58, 1924.
- GATES, ARTHUR I. and LASALLE, JESSIE: "The relative predictive values of certain intelligence and educational tests together with a study of the effect of educational achievement upon intelligence test scores"; *Jr. Ed. Psychol.*, 14:517-39, 1923.
- GAULT, ROBERT H.: *Social psychology: the bases of behavior called social*; New York, H. Holt and Company, 1923. x + 336 pp.
- GEBHART, JOHN C.: *The growth and development of Italian children in New York City*; New York, The New York Association for Improving the Condition of the Poor, 1924. 36 pp.
- GESELL, ARNOLD LUCIUS: *The mental growth of the pre-school child; a psychological outline of normal development from birth to the sixth year, including a system of developmental diagnosis*; New York, The Macmillan Company, 1925. x + 447 pp.
- GIBSON, HENRY WILLIAM: *Boyology; or, boy analysis*; New York (etc.), Association Press, 1916. x + 294 pp.
- GILLIN, JOHN LEWIS: *Wholesome citizens and spare time*; (Cleveland Foundation Publication No. 29). Cleveland, The Survey Committee of the Cleveland Foundation, 1918. 182 pp.
- GILLINGHAM, ANNA: "Educating the gifted child"; *Am. Rev.*, 1:401-12, 1923.
- GLOVER, J. W.: *Tables of applied mathematics in finance, insurance, statistics*; Ann Arbor, George Wahr, 1923. xiii + 676 pp.
- GODDARD, HENRY HERBERT: *The Kallikak family; a study in the heredity of feeble-mindedness*; New York, The Macmillan Company, 1919. xv + 121 pp.
- *Psychology of the normal and subnormal*; New York, Dodd, Mead and Company, 1919. xxiv + 349 pp.

- GODIN, PAUL: "Determination de 'l'adolescent type' aux différents âges pubertaires d'après 36,000 mensurations sur 100 sujets suivis individuellement de 13 à 18 ans"; *Bull. et Mém. Soc. d. Anthropol. de Paris*, S. 5. (3), 717-8, 1902.
- *Growth during school age, its application to education*; Tr. by Samuel L. Eby. Boston, R. G. Badger, 1920. 268 pp.
- "Quelques conclusions de mes recherches sur la croissance chez l'homme relatives à la puberté"; *Comp. Rend. d. Acad. d. Sci. de Paris*, 153:967-69, 1911.
- *Recherches anthropométriques sur la croissance des diverses parties du corps. Determination de l'adolescent type aux différents âges pubertaires d'après 36,000 mensurations sur 100 sujets suivis individuellement de 13 à 18 ans*; Paris, A. Malaine, 1903.. xv + 212 pp.
- GOODRICH, T. V. and CLEMENTS, S. L.: "A comparison of a group of high school 'failures' with a group of successful students"; *School and Society*, 18:715-20, 1923.
- GROOS, KARL: *The play of animals*; Tr. by Elizabeth L. Baldwin; with a preface and an appendix by J. Mark Baldwin. New York, D. Appleton and Company, 1898. xxvi + 341 pp.
- *The play of man*; Tr. by Elizabeth L. Baldwin with a preface by J. Mark Baldwin. New York, D. Appleton and Company, 1901. ix + 412 pp.
- GROVES, J. W.: "Elementary school children and the movies"; *School and Society*, 18:659-60, 1923.
- GRUENBERG, BENJAMIN C.: *Outlines for child study; a manual for parents and teachers*; New York, The Macmillan Company, 1922. xx + 260 pp.
- GULICK, LUTHER HALSEY: *A philosophy of play*; New York, Boston (etc.), C. Scribner's Sons, 1920. xvi + 291 pp.
- HAGGERTY, M. E. and NASH, HARRY B.: "Mental capacity of children and paternal occupation"; *Jr. Ed. Psychol.*, 15:559-72, 1924.
- HALL, GRANVILLE STANLEY: *Adolescence; its psychology and its relations to physiology, anthropology, sociology, sex, crime, religion and education*. 2 vols. New York, D. Appleton and Co., 1904.
- *Youth, its education, regimen and hygiene*; New York, D. Appleton and Company, 1907. x + 379 pp.
- HALL, M. L.: "Intelligence as indicated by re-action in games"; *Training School Bull.*, 20:106-9, 1923.
- HAMEL, IGNATIUS AMBROSE: "A study and analysis of the conditioned reflex"; *Psychol. Monog.*, Whole No. 118, 1919. 65 pp.
- HANEY, EARL M. and UHL, WILLIS L.: "Academic records of accelerated students"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part I, 323-32, 1924.

BIBLIOGRAPHY

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- HARROW, BENJAMIN: *Glands in health and disease*; New York, E. P. Dutton and Company, 1922. xiii + 218 pp.
- HART, HORNE LL NORRIS: *Progress report on a test of social attitudes and interests*; (University of Iowa Studies in Child Welfare, Vol. II, No. 4) Iowa City, The University, 1923. 40 pp.
- HARTSHORNE, HUGH: "Measurements of growth in religion"; *Religious Educ.*, 14:148-55, 1919.
- HARTSON, LOUIS D.: "The psychology of the club; a study in social psychology"; *Ped. Sem.*, 18:353-414, 1911.
- HAYES, M. H. S. and PATERSON, D. G.: "Experimental development of the graphic rating method"; *Psychol. Bull.* 18:48-99, 1921.
- HAYNES, ROWLAND: *Recreation survey*; (Milwaukee. Bureau of Economy and Efficiency. Bulletin No. 17). Milwaukee, C. H. Kronenberger & Co., 1912. 31 pp.
- HEALY, WILLIAM: *The individual delinquent; a text-book of diagnosis and prognosis for all concerned in understanding offenders*; Boston, Little, Brown, and Company, 1915. xvi + 830 pp.
- *Mental conflicts and misconduct*; Boston, Little Brown and Company, 1917. xi + 330 pp.
- *The practical value of scientific study of juvenile delinquents*; United States Government Report, Department of Labor (Children's Bureau Publication No. 96, 1922). 31 pp.
- HEATON, KENNETH L.: "Physical development of children of high and low mental groups"; *Am. Phys. Educ. Rev.*, 30:127-30, 1925.
- HENNRICH, KILIAN: *Boy guidance, a course in Catholic boy leadership*; New York, Cincinnati, Chicago, Benziger Brothers, 1925. xiv + 239 pp.
- HERSKOVITS, MELVILLE J.: "A test of the Downey Will-Temperament Test"; *Jr. Apl. Psychol.*, 8:75-88, 1924.
- HINES, HARLAN CAMERON: *A guide to educational measurements; a manual on the use of educational statistics, intelligence tests and educational measurements, in determining the ability, achievement, and classification of school children*; Boston, New York (etc.), Houghton, Mifflin Company, 1924. xxii + 270 pp.
- *Measuring intelligence*; Boston, New York (etc.), Houghton Mifflin Company, 1923. xi + 146 pp.
- HINKLE, MRS. BEATRICE M.: *The re-creating of the individual; a study of psychological types and their relation to psychoanalysis*; New York, Harcourt, Brace and Company, 1923. xiii + 465 pp.
- HOKE, K. J.: "The health of the intellectually superior pupil"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part I, 238-46, 1924.
- HOLLINGWORTH, HARRY LEVI: *Judging human character*; New York, London, D. Appleton and Company, 1922. xiii + 268 pp.
- HOLLINGWORTH, LETA S.: "An introduction to biography for young

- children who test above 150 IQ"; *Teachers Coll. Rec.*, 26:277-87, 1924.
- The psychology of subnormal children*; New York, The Macmillan Company, 1920. xix + 288 pp.
- Special talents and defects; their significance for education*; New York, The Macmillan Company, 1923. xix + 216 pp.
- HOLLINGWORTH, LETA S., GARRISON, CHARLOTTE G. and BURKE, AGNES: "Subsequent history of E; five years after the initial report"; *Jr. Apl. Psychol.*, 6:205-12, 1922.
- HOLLINGWORTH, LETA S. and TAYLOR, GRACE A.: "Size and strength of children who test above 135 IQ"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part I, 221-37, 1924.
- HOPKINS, LEVI THOMAS: *The intelligence of continuation school-children in Massachusetts*; (Harvard Studies in Education. Vol. V). Cambridge, Harvard University Press, 1924. xiv + 132 pp.
- HORN, ERNEST: "The curriculum for the gifted: some principles and an illustration"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part I, 73-89, 1924.
- HORN, JOHN LOUIS: *The education of exceptional children; a consideration of public school problems and policies in the field of differentiated education*; New York and London, The Century Co., 1924. xvi + 343 pp.
- HOSE, CHARLES and McDUGALL, WILLIAM: *The pagan tribes of Borneo; a description of their physical, moral and intellectual condition, with some discussion of their ethnic relations*; 2 vols. London, Macmillan and Company, 1912.
- HOSKINS, R. G.: "Some recent work on internal secretions"; *Endocrinology*, 6:621-32, 1922.
- HUG-HELLMUTH, H. VON: *A study of the mental life of the child*; Tr. by James J. Putnam and Mabel Stevens. Washington, Nervous and Mental Disease Publishing Company, 1919. xiii + 154 pp.
- IZAWA, YOSITAME: "A contribution to the study of the pineal body"; *Am. Jr. of the Med. Sci.*, 166:185-96, 1923.
- JENNINGS, HERBERT SPENCER: *Behavior of the lower organisms*; (Columbia University Biological Series, X). New York, The Columbia University Press, The Macmillan Company, agents, 1906. xiv + 366 pp.
- JOHNSON, BUFORD JENNETTE: *Mental growth of children in relation to rate of growth in bodily development*. New York, E. P. Dutton and Company, 1925. xix + 160 pp.
- JOHNSON, ELEANOR H.: "The relation of the conduct difficulties of a group of public school boys to their mental status and home environment"; *Jr. Delinq.*, 6:549-74, 1921.

BIBLIOGRAPHY

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- JOHNSON, GEORGE ELLSWORTH: *Education by plays and games*; Boston, New York (etc.), Ginn & Company, 1907. xiv + 234 pp.
- *Education through recreation*; (Cleveland Foundation Publication No. 6). Cleveland, The Survey Committee of the Cleveland Foundation, 1916. 94 pp.
- JOHNSON, O. J.: "Teachers' judgments of qualities of gifted pupils as related to classroom activities"; *School and Society*, 17:466-69, 1923.
- JOINT COMMITTEE ON METHODS OF PREVENTING DELINQUENCY: *Three problem children; narratives from the case records of a child guidance clinic*; New York, Joint Committee on Methods of Preventing Delinquency, 1924. 146 pp.
- JONES, ALICE M.: "An analytical study of one hundred twenty superior children"; *Psychol. Clinic*, 16:19-76, 1925.
- JONES, DAVID CARADOG: *A first course in statistics*; London, G. Bell and Sons, Ltd., 1921. ix + 286 pp.
- JORDAN, A. M.: "The validation of intelligence tests"; *Jr. Ed. Psychol.*, 14:348-66, 414-28, 1923.
- JUDGE BAKER FOUNDATION, Boston: Case study no. (1-) Series I; Boston, Judge Baker Foundation, 1922.
- KAMMERER, PAUL: *Inheritance of acquired characteristics*; Tr. by A. Paul Maerker-Branden. New York, Boni and Liveright, 1924. 414 pp.
- KELLEY, TRUMAN LEE: *Statistical method*; New York, The Macmillan Company, 1923. xi + 390 pp.
- KEMPF, EDWARD JOHN: *Psychopathology*; St. Louis, C. V. Mosby Company, 1920. xxiii + 762 pp.
- "The social and sexual behavior of infra-human primates with some comparable facts in human behavior"; *Psychoan. Rev.*, 4:127-54, 1917.
- KING, IRVING: *The high-school age*; Indianapolis, The Bobbs-Merrill Company, 1914. 233 pp.
- "Physiological age and school standing"; *Psychol. Clinic*, 7:222-29, 1914.
- KIRKPATRICK, EDWIN ASBURY: *The individual in the making; a subjective view of child development with suggestions for parents and teachers*; Boston, New York (etc.), Houghton, Mifflin Company, 1911. ix + 339 pp.
- KIRKPATRICK, WILLIAM H.: "Education of adolescents for democracy. A general view and evaluation of present methods"; *Religious Educ.*, 14:123-35, 1919.
- KITSON, HARRY D.: "Trade and job analysis as an aid in vocational curriculum building"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part II, 237-56, 1924.

- KLINE, LINUS W.: "A study in juvenile ethics"; *Ped. Sem.*, 10:239-66, 1903.
- KOFFKA, KURT: *The growth of the mind; an introduction to child-psychology*; Tr. by Robert Morris Ogden. London, K. Paul, Trench, Trubner & Co., Ltd., New York, Harcourt, Brace & Company, 1924. xvi + 382 pp.
- KOHS, SAMUEL CALMIN: "An ethical discrimination test"; *Jr. Delinq.*, 7:1-15, 1922.
- *Intelligence measurement; a psychological and statistical study based upon the block-design tests*; New York, The Macmillan Company, 1923. xii + 312 pp.
- KORNHAUSER, A. W.: "The psychology of vocational selection"; *Psychol. Bull.*, 19:192-229, 1922.
- KRABBE, KNUD H.: "The pineal gland, especially in its relation to the problem of its supposed significance in sexual development"; *Endocrinology*, 7:379-414, 1923.
- KUEHLMANN, F.: "The results of repeated mental re-examination of 639 feeble-minded over a period of ten years"; *Jr. Apl. Psychol.*, 5:195-224, 1921.
- LAIRD, DONALD A.: "A study of some factors causing a disparity between intelligence and scholarship in college students"; *School and Society*, 19:290-92, 1924.
- "A mental hygiene and vocational test"; *Jr. Ed. Psychol.*, 16:419-22, 1925.
- LEAMING, REBECCA ELIZABETH: *Tests and norms for vocational guidance of the fifteen-year-old performance level, a comparative study of the proficiency of six hundred children*; Philadelphia, Univ. of Penn., 1923. 30 pp.
- LEE, JOSEPH: *The normal course in play, practical materials for use in the training of playground and recreation workers*. New York, A. S. Barnes and Company, 1925. x + 261 pp.
- *Play in education*; New York, The Macmillan Company, 1915. xxiii + 500 pp.
- LENROOT, KATHARINE and LUNDBERG, EMMA O.: *Juvenile courts at work; a study of the organization and methods of ten courts*; United States Government Report, Department of Labor (Children's Bureau Publication, No. 141, 1925). vii + 323 pp.
- LENTZ, THEODORE FERDINAND: *An experimental method for the discovery and development of tests of character*; New York, Teachers College, Columbia University, 1925. iv + 47 pp.
- LINCOLN, EDWARD A.: "The mental age of adults"; *Jr. Ed. Res.*, 6:133-44, 1922.
- LOWE, GLADYS M., SHIMBERG, MYRA C. and WOOD, MIRIAM W.: "Further standardization of construction tests A and B"; *Jr. Apl. Psychol.*, 8:324-38, 1924.

- LUND, DAVID: *Über die ursachen der jugendasozialität. Kriminal-psychologische und soziale untersuchungen mit einschluss von familienforschungen in Schweden*; Uppsala, Almqvist & Wiksells boktryckeri-a.-b., 1918. iv + 358 pp.
- LUNDBERG, EMMA O.: *State commissions for the study and revision of child-welfare laws*; United States Government Report, Department of Labor (Children's Bureau Publication, No. 131, 1924). v + 156 pp.
- McCALL, WILLIAM ANDERSON: *How to measure in education*; New York, The Macmillan Company, 1923. xii + 416 pp.
- McCOLLUM, ELMER VERNER: *The newer knowledge of nutrition; the use of food for the preservation of vitality and health*; 2d ed., New York, The Macmillan Company, 1922. xviii + 449 pp.
- McCURDY, J. H.: "Physical efficiency tests during adolescence"; *Trans. Fifteenth Internat. Cong. on Hyg. and Demography*, 3:420-28, 1913.
- McDOUGALL, WILLIAM: "Can sociology and social psychology dispense with instincts?"; *Jr. Abn. Psychol. and Soc. Psychol.*, 19: 13-41, 1924.
- *An introduction to social psychology*; 14th ed., Boston, John W. Luce & Co., 1921. 418 pp.
- *Outline of psychology*; New York, Chicago (etc.), C. Scribner's Sons, 1923. xvi + 456 pp.
- McGRATH, MARIE CECILIA: "A study of the moral development of children"; *Psychol. Monog.*, Whole No. 144, 1923. 190 pp.
- McKEEVER, WILLIAM ARCH: *Training the boy*; New York, The Macmillan Company, 1913. xviii + 368 pp.
- McKENZIE, ROBERT TAIT: *Exercise in education and medicine*; 2d ed., Philadelphia and London, W. B. Saunders Company, 1915. 585 pp.
- MALLORY, J. N.: "A study of the relation of some physical defects to achievement in elementary school"; *George Peabody College for Teachers Contrib. to Educ.*, No. 9, 1922. 78 pp.
- MARRO, ANTONIO: "Influence of pubertal development upon the moral character of children of both sexes"; *Am. Jr. Sociol.*, 5: 193-217, 1899.
- *La pubertà studiata nell'uomo e nella donna in rapporto all'antropologia, alla psichiatria, alla pedagogia ed alla sociologia*; 2d ed., Torino, Fratelli Bocca, 1900. xxxii + 542 pp.
- MARTIN, A. H.: "A study of the subsequent standing of specially promoted pupils"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part I, 333-53, 1924.
- MAST, S. O. and PUSCH, L. C.: "Modification of response in Amoeba"; *Biol. Bull. Marine Biol. Lab.*, 66:55-59, 1924.
- MATEER, FLORENCE: *The unstable child; an interpretation of psy-*

chopathy as a source of unbalanced behavior in abnormal and troublesome children; New York, D. Appleton and Company, 1924. xii + 471 pp.

MAY, MARK A. and HARTSHORNE, HUGH: "Objective methods of measuring character"; *Ped. Sem. and Jr. Gen. Psychol.*, 32:45-67, 1925.

MAYER, A.: "Über einzel- und gesamtleistung des schulkindes"; *Archiv f. d. Gesamte Psychol.*, 1:276-416, 1903. *Fide Allport.*

MEIER, NORMAN C.: "A study of the Downey test by the method of estimates"; *Jr. Ed. Psychol.*, 14:385-95, 1923.

MEISTER, MORRIS: "The educational value of scientific toys"; *Gen. Sci. Quart.*, 7:167-80, 1923.

MOEDE, W.: "Der wetteifer, seine struktur und sein ausmass"; *Zsch. f. päd. Psychol.*, 15:353-68, 1914. *Fide Allport.*

MONROE, WALTER SCOTT: *An introduction to the theory of educational measurements*; Boston, New York (etc.), Houghton, Mifflin Company, 1923. xxii + 364 pp.

MOORE, CARL R.: "The behavior of the testis in transplantation, experimental cryptorchism, vasectomy, scrotal insulation and heat application"; *Endocrinology*, 8:493-508, 1924.

MOORE, H. T. and GILLILAND, A. R.: "The measurement of aggressiveness"; *Jr. Apl. Psychol.*, 5:97-118, 1921.

MOORE, THOMAS VERNER: *Dynamic psychology; an introduction to modern psychological theory and practice*; Philadelphia (etc.), J. B. Lippincott Company, 1924. viii + 444 pp.

—"The parataxes; a study of certain borderline mental states"; *Psychoan. Rev.*, 8:252-83, 1921.

MORGAN, JOHN JACOB BROOKE: *The psychology of the unadjusted school child*; New York, The Macmillan Company, 1924. xi + 300 pp.

MOYER, EDWARD L.: "A study of the effects of classification by intelligence tests"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part I, 313-22, 1924.

MUDGE, EVELYN LEIGH: *The psychology of early adolescence*; New York, printed for the Teacher Training Publishing Association by the Caxton Press, 1922. 114 pp.

MÜHL, ANITA MARY: "Automatic writing combined with crystal gazing as a means of recalling forgotten incidents"; *Jr. Abn. Psychol. and Soc. Psychol.*, 19:264-73, 1924.

—"The use of automatic writing in determining conflicts and early childhood impressions"; *Jr. Abn. Psychol. and Abn. Psychol.*, 18:1-32, 1923.

NACCARATI, SANTE and LEWY-GUINZBURG, R. L.: "Hormones and intelligence"; *Jr. Apl. Psychol.*, 6:221-34, 1922.

- VASH, A. M.: "Play activities of mentally deficient children"; *Training School Bull.*, 20:97-105, 1923.
- NESBITT, FLORENCE: *Standards of public aid to children in their own homes*; United States Government Report, Department of Labor (Children's Bureau Publication, No. 118, 1923). vii + 145 pp.
- NORSWORTHY, NAOMI and WHITLEY, MARY THEODORA: *The psychology of childhood*; New York, The Macmillan Company, 1918. xix + 375 pp.
- O'SHEA, MICHAEL VINCENT, ed.: *The child: his nature and his needs; a survey of present-day knowledge concerning child nature and the promotion of the well-being and education of the young*; Valparaiso, The Children's Foundations, 1924. ix + 516 pp.
- PATRICK, GEORGE THOMAS WHITE: *The psychology of relaxation*; Boston and New York, Houghton, Mifflin Company, 1916. viii + 280 pp.
- PATRICK, MARY L.: "Some attainments of gifted children in segregated classes at Louisville"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part I, 262-74, 1924.
- PEARSON, KARL: *Tables for statisticians and biometricians*; Cambridge, University Press, 1914. lxxxiii + 143 pp.
- PECHSTEIN, LOUIS AUGUSTUS and MCGREGOR, A. LAURA: *Psychology of the junior high school pupil*; Boston, New York (etc.), Houghton, Mifflin Company, 1924. xix + 280 pp.
- PETERSON, JOSEPH: "The comparative abilities of white and negro children"; *Comp. Psychol. Monog.*, 1, 5, 1923, Baltimore, Williams & Wilkins Company, 1923. 141 pp.
- PFISTER, OSKAR ROBERT: *Love in children and its aberrations; a book for parents and teachers*; Tr. by Eden and Cedar Paul. New York, Dodd, Mead and Company, 1924. 576 pp.
- PINTNER, RUDOLF: "Results obtained with the non-language group tests"; *Jr. Ed. Psychol.*, 15:473-83, 1924.
- PINTNER, RUDOLF and PATERSON, DONALD G.: *A scale of performance tests*; New York and London, D. Appleton and Company, 1917. ix + 217 pp.
- PLAYGROUND AND RECREATION ASSOCIATION OF AMERICA: *Camping out; a manual on organized camping*; New York, The Macmillan Company, 1924. xx + 636 pp.
- POFFENBERGER, A. T. and CARPENTER, FLORENCE L.: "Character traits in school success"; *Jr. Exp. Psychol.*, 7:67-74, 1924.
- PORTER, W. T.: "The physical basis of precocity and dullness"; *Trans. Acad. of Sci. of St. Louis*, 6:263-80, 1893.
- PORTER, STANLEY DAVID: "Studies in mental deviation"; *Publications of the Training School at Vineland, Dept. of Research*, No. 24, Vineland, the Training School, 1922. xi + 276 pp.

- PRESCOTT, DANIEL ALFRED: *The determination of anatomical age in school children and its relation to mental development*; (Harvard Monographs in Education, Ser. I. Studies in educational psychology and educational measurements, No. 5). Cambridge, The Graduate School of Education, Harvard University, 1923, iii + 59 pp.
- PROSSER, C. A. and ALLEN, C. R.: "Training workers in industry"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part II, 329-61, 1924.
- PUFFER, JOSEPH ADAMS: *The boy and his gang*; Boston, New York (etc.), Houghton, Mifflin Company, 1912. xi + 187 pp.
- "Boys' gangs"; *Ped. Sem.*, 12:175-212, 1905.
- RAINWATER, CLARENCE E.: "Play as collective behavior"; *Jr. Apl. Social.*, 217-22, 1924.
- RAUBENHEIMER, ALBERT SYDNEY: "An experimental study of some behavior traits of the potentially delinquent boy"; *Psychol. Monog.*, No. 159, 1925. 107 pp.
- REAM, M. J.: "A social relations test"; *Jr. Apl. Psychol.*, 6:69-73, 1922.
- REAVIS, W. C.: "The administration of the superior students in the University of Chicago high school"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part I, 355-65, 1924.
- RECTOR, W. G.: "A study in the prediction of high school success"; *Jr. Ed. Psychol.*, 16:28-37, 1925.
- RICHMOND, MARY ELLEN: *Social diagnosis*; New York, Russell Sage Foundation, 1917. 511 pp.
- ROGERS, JAMES FREDERICK: *Municipal and school playgrounds and their management*; United States Government Report, Department of the Interior (Bureau of Education, School Health Studies, No. 6, 1924). 22 pp.
- ROOT, WILLIAM THOMAS: "A socio-psychological study of fifty-three super-normal children"; *Psychol. Monog.*, Whole No. 133, 1921. 134 pp.
- RUCH, G. M.: "A preliminary study of the correlation between estimates of volitional traits and the results from the Downey will profile"; *Jr. Apl. Psychol.*, 5:159-62, 1921.
- RUCH, G. M. and DELMANZO, M. P.: "The Downey Will-Temperament Test. A further analysis of its reliability and validity"; *Jr. Apl. Psychol.*, 7:65-73, 1923.
- RUCH, G. M. and KOERTH, WILHELMINE: "'Power' vs. 'speed' in Army Alpha"; *Jr. Ed. Psychol.*, 14:193-208, 1923.
- RUCH, G. M. and STODDARD, G. D.: "Comparative reliabilities of five types of objective examinations"; *Jr. Ed. Psychol.*, 16:89-103, 1925.
- RUGG, HAROLD ORDWAY: "The curriculum for gifted children";

- Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part I, 91-121, 1924.
- "Is the rating of human character practicable?"; *Jr. Ed. Psychol.*, 12:425-38, 485-501 and 13:30-42, 81-83, 1921 and 1922.
- *Statistical methods applied to education; a text-book for students of education in the quantitative study of school problems*; Boston, New York (etc.), Houghton, Mifflin Company, 1917. xviii + 410 pp.
- RUSSELL SAGE FOUNDATION, *New York, Department of Recreation: Sources of information on play and recreation*; (Rev. and enl. ed.), New York, Department of Recreation, Russell Sage Foundation, 1920. 48 pp.
- SANDWICK, R. L.: "Correlation of physical health and mental efficiency"; *Jr. Ed. Res.*, 1:199-203, 1920.
- SCHILLER, JOHANN C. F.: *Schiller's sämtliche werke; vollständige ausgabe*; 2 vols., 2d vol., Stuttgart, Cotta'schen Verlag, 1862.
- SCHMIDT, F.: "Experimentelle untersuchungen über die hausaufgaben des schulkindes"; *Samm. v. Abhand. z. Psych. Päd.*, 1:181-300, 1904. *Fide Allport*.
- SETON, ERNEST THOMPSON: *The woodcraft manual for boys; the seventeenth birch bark roll*; Garden City, Doubleday, Page & Company, 1918. xxix + 441 pp.
- SHELDON, HENRY D.: "The institutional activities of American children"; *Am. Jr. Psychol.*, 9:425-48, 1898.
- SMITH, CHARLES FREDERICK: *Games and recreational methods for clubs, camps and scouts*; New York, Dodd, Mead and Company, 1924. 463 pp.
- SPEARMAN, CHARLES EDWARD: *The nature of 'intelligence' and the principles of cognition*; London, Macmillan and Company, Ltd., 1923. viii + 358 pp.
- SPENCER, HERBERT: *The principles of psychology*; 2 vols., New York and London, D. Appleton and Company, 1914. (First published 1855.)
- STALNAKER, ELIZABETH M.: "A comparison of certain mental and physical measurements"; *Jr. Comp. Psychol.*, 3:181-239, 431-68, 1923.
- STARBUCK, EDWIN D.: "Contributions to the psychology of religion, II. Some aspects of religious growth"; *Am. Jr. Psychol.*, 9:70-124, 1897.
- STEDMAN, LULU M.: *Education of gifted children*; Yonkers-on-Hudson, N. Y., Chicago, World Book Company, 1924. viii + 192 pp.
- STENQUIST, JOHN LANGDON: *Measurements of mechanical ability*; New York, Teachers College, Columbia University, 1923. ix + 101 pp.
- STERN, WILLIAM: *Psychology of early childhood up to the sixth year*.

- of age; Tr. from the 3d ed. by Anna Barwell, New York, Henry Holt and Company, 1924. 557 pp.
- STILES, CHARLES WARDELL and WHEELER, GEORGE A.: *Heights and weights of children. Classification, by age and sanitation, of 1,652 white school children (771 boys, 881 girls) in the city of X; United States Government Report, Public Health Service (Reprint No. 303, from the Public Health Reports, 1915).* 16 pp.
- STONE, WILLIAM H.: "Vocational guidance in colleges and universities"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part II, 139-45, 1924.
- SYMONDS, PERCIVAL: "The present status of character measurement"; *Jr. Ed. Psychol.*, 15:484-98, 1924.
- TAYLOR, M.: "The child and the home"; *Mental Hygiene*, 6:746-72, 1922.
- TEAGARDEN, FLORENCE M.: *A study of the upper limits of the development of intelligence*; New York, Teachers College, Columbia University, 1924. vi + 112 pp.
- TERMAN, LEWIS MADISON: "The Army rating scale"; *Psychol. Bull.*, 15:177-87, 1918.
- *Genetic studies of genius*, Vol. I. *Mental and physical traits of a thousand gifted children*, Stanford Univ., Cal., Stanford University Press, 1925. xv + 648 pp.
- *The hygiene of the school child*; Boston, New York (etc.), Houghton, Mifflin Company, 1914. xvii + 417 pp.
- *The measurement of intelligence; an explanation of and a complete guide for the use of the Stanford revision and extension of the Binet-Simon intelligence scale*; Boston, New York (etc.), Houghton, Mifflin Company, 1916. xviii + 362 pp.
- "A new approach to the study of genius"; *Psychol. Rev.*, 29:310-18, 1922.
- "The physical and mental traits of gifted children"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part I, 155-67, 1924.
- "The possibilities and limitations of training"; *Jr. Ed. Res.*, 10:335-43, 1924.
- TERMAN, LEWIS MADISON and CHASE, J. M.: "The psychology, biology and pedagogy of genius"; *Psychol. Bull.*, 17:397-410, 1920.
- TERMAN, LEWIS MADISON and DEVOSS, JAMES C.: "The educational achievements of gifted children"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part I, 169-84, 1924.
- THEIS, SOPHIE VANSENDEN: *How foster children turn out*; (State Charities Aid Association, New York, Publication No. 165), New York, 1924. 230 pp.
- THOM, DOUGLAS ARMOUR: *Habit clinics for the child of preschool*

- age; *their organization and practical value*; United States Government Report, Department of Labor (Children's Bureau Publication No. 135, 1924). v + 71 pp.
- THOREK, MAX: "Experimental investigations of the rôle of the Leydig, seminiferous and Sertoli cells and effects of testicular transplantation"; *Endocrinology*, 8:61-90, 1924.
- THORNDIKE, EDWARD L.: "On the improvement in intelligence scores from fourteen to eighteen"; *Jr. Ed. Psychol.*, 14:513-516, 1923.
- THURSTON, HENRY W.: *Delinquency and spare time; a study of a few stories written into the court records of the city of Cleveland*; (Cleveland Foundation Publication No. 27), Cleveland. The Survey Committee of the Cleveland Foundation, 1918. 189 pp.
- THURSTONE, LOUIS LEON: *The fundamentals of statistics*; New York, The Macmillan Company, 1925. xvi + 237 pp.
- "The improvement of mental measurement"; *Jr. Ed. Res.*, 9:1-11, 1925.
- "A method of scaling psychological and educational tests"; *Jr. Ed. Psychol.*, 16:433-51, 1925.
- TIERNY, JOHN L.: "Classification and treatment of hypophyseal disorders"; *Endocrinology*, 7:536-78, 1923.
- TOLMAN, EDWARD CHASE: "The nature of instinct"; *Psychol. Bull.*, 20:200-218, 1923.
- TOOPS, HERBERT ANDERSON: *Tests for vocational guidance of children thirteen to sixteen*; New York, Teachers College, Columbia University, 1923. xii + 159 pp.
- *Trade tests in education*; New York, Teachers College, Columbia University, 1921. vi + 118 pp.
- TOWN, CLARA HARRISON: *Analytic study of a group of five and six-year-old children*; Iowa City, The University, 1921. 87 pp.
- TRACY, FREDERICK: *The psychology of adolescence*; New York, The Macmillan Company, 1920. x + 246 pp.
- TRIPLETT, N.: "The dynamogenic factors in pace-making and competition"; *Am. Jr. Psychol.*, 9:507-32, 1897. *Fide Allport*.
- UNITED STATES CHILDREN'S BUREAU: *Foster home care for dependent children*; (Children's Bureau Publication No. 136, 1924). Washington, Government Printing Office, 1924. v + 275 pp.
- UPTON, SIGGFRIED MARIA and CHASSELL, CLARA FRANCES: "A scale for measuring the importance of habits of good citizenship; with practical applications to a new report card"; *Teachers Coll. Rec.*, 20:36-65, 1919.
- VAN ALSTYNE, DOROTHY: "A study of ten gifted children whose school progress was unsatisfactory"; *Jr. Ed. Res.*, 8:122-35, 1923.
- VAN DER HOOP, J. H.: *Character and the unconscious; a critical exposition of the psychology of Freud and Jung*; Tr. by Elizabeth

- Trevelyan, London, K. Paul, Trubner, Trench & Co., Ltd., New York, Harcourt, Brace & Company, Inc., 1923. vii + 222 pp.
- VINCENT, LEONA: *A study of intelligence test elements*; New York, Teachers College, Columbia University, 1924. vii + 36 pp.
- VINCENT, SWALE: *An introduction to the study of secretion*; New York, Longmans, Green & Co., 1924. 168 pp.
- VOELKER, PAUL FREDERICK: *The function of ideals and attitudes in social education, an experimental study*; New York, Teachers College, Columbia University, 1921. 127 pp.
- WADDLE, CHARLES WILLIAM: "Case histories of gifted children"; *Twenty-third Yearbook Nat. Soc. for the Study of Educ.*, Part I, 185-207, 1924.
- *An introduction to child psychology*; Boston, New York (etc.); Houghton, Mifflin Company, 1918. xv + 317.
- WALLIN, JOHN EDWARD WALLACE: *The education of handicapped children*; Boston, New York (etc.), Houghton Mifflin Company, 1924. xiv + 394 pp.
- WANNAMAKER, CLAUDIA: "Methods of recreational adjustment as a form of social case treatment"; *Mental Hygiene*, 7:744-54, 1923.
- WARNER, M. L.: "Influence of mental level in the formation of boys' gangs"; *Jr. Apl. Psychol.*, 7:224-36, 1923.
- WASHBURN, MARGARET FLOY: *The animal mind; a text-book of comparative psychology*; 2d ed., New York, The Macmillan Company, 1917. xii + 386 pp.
- WASHBURNE, CARLETON W.: "The attainments of gifted children under individual instruction"; *Twenty-third Yearbook of the Nat. Soc. for the Study of Educ.*, Part I, 247-61, 1924.
- WASMANN, ERICH: "The ants and their guests"; United States Government Report (Smithsonian Institution, Annual Report for 1912, Washington, 1913, pp. 455-74).
- *Instinkt und intelligenz im tierreich. Ein kritischer beitrage zur modernen tierpsychologie*, 3te Aufl., Freiburg im Breisgau, Herder, 1905. xiv + 276 pp.
- *Die psychischen fähigkeiten der ameisen; mit einem ausblick auf die vergleichende tierpsychologie*; 2te Aufl., Stuttgart, E. Schweizerbartsche Verlagsbuchhandlung (E. Nägele), 1909. xi + 190 pp.
- *Der trichterwickler, eine naturwissenschaftliche studie über den thierinstinkt*; Münster, Aschendorff'schen Buchhandlung, 1884. vii + 266 pp.
- WATSON, GOODWIN BARBOUR: *The measurement of fair-mindedness*; New York, Teachers College, Columbia University, 1925. 97 pp.
- WATSON, JOHN BROADUS: *Psychology from the standpoint of a behaviorist*; 2d ed., Philadelphia and London, J. B. Lippincott Company, 1924. xvii + 448 pp.

- WEIL, ARTHUR: *The internal secretions, for the use of students and physicians*; Tr. from 3d German edition by Jacob Gutman, New York, The Macmillan Company, 1924. xviii + 287 pp.
- WHEELER, WILLIAM MORTON: *Social life among the insects; being a series of lectures delivered at the Lowell Institute in Boston in March, 1922*; New York, Harcourt, Brace and Company, 1923. vii + 375 pp.
- WHIPPLE, GUY MONTROSE: *Classes for gifted children; an experimental study of methods of selection and instruction*; Bloomington, Public School Publishing Company, 1919. 151 pp.
- WHITE, WILLIAM ALANSON: *Mechanisms of character formation; an introduction to psychoanalysis*; New York, The Macmillan Company, 1916. 342 pp.
- *The mental hygiene of childhood*; Boston, Little, Brown & Co., 1919. xv + 193 pp.
- *Outlines of psychiatry*; 10th ed., Washington, Nervous and Mental Disease Publishing Company, 1924. vii + 388 pp.
- WHITMAN, ESTHER C.: "A brief test for manual dexterity"; *Jr. Ed. Psychol.*, 16:118-23, 1925.
- WHITTEMORE, IRVING C.: "The influence of competition on performance; an experimental study"; *Jr. Abn. Psychol. and Soc. Psychol.*, 19:236-53, 1924.
- WILE, IRA SOLOMON: *The challenge of childhood, studies in personality and behavior*; New York, Thomas Seltzer, 1925. x + 305 pp.
- WILLIAMS, J. HAROLD: *A guide to the grading of homes; directions for using the Whittier scale for grading home conditions, with the standard score sheet of comparative data*; Whittier State School, Department of Printing Instruction, 1918. 21 pp.
- WILLIAMS, P. E.: "A study of adolescent friendships"; *Ped. Sem.*, 30:342-46, 1923.
- WOODROW, H. and LOWELL, F.: "Some data on anatomic age and its relation to intelligence"; *Ped. Sem.*, 29:1-15, 1921.
- WOODS, FREDERICK ADAMS: *Mental and moral heredity in royalty; a statistical study in history and psychology*; New York, H. Holt and Company, 1906. viii + 312 pp.
- WORCESTER, D. A.: "The effect of outside work and athletics upon scholarship"; *School and Society*, 18:779-80, 1923.
- WYLAND, RAY O. and HILL, W. H.: "Correlating extra-church organizations"; *Scout Executive*, 5:2-9, 1924.
- YATES, DOROTHY HAZELTINE: *A study of some high school seniors of superior intelligence*; (*Jr. Ed. Res. Monog. No. 2.*) Bloomington, Public School Publishing Company, 1922. 75 pp.
- YERKES, ROBERT MEARNES: *Psychological examining in the United States army*; United States Government Report (Memoirs of the National Academy of Sciences, Vol. 15, 1921). vi + 890 pp.

BIBLIOGRAPHY

- YOAKUM, CLARENCE STONE and YERKES, ROBERT MEARNES: *Army mental tests*; New York, H. Hoit and Company, 1920. xiii + 303 pp.
- YOUNG, KIMBALL: *Mental differences in certain immigrant groups; psychological tests of south Europeans in typical California schools with bearing on the educational policy and on the problems of racial contacts in this country*; Eugene, Oregon, University Press, 1922. 103 pp.
- YULE, GEORGE UDNY: *An introduction to the theory of statistics*; 6th ed., London, C. Griffin and Company, Ltd., 1922. xv + 415 pp.

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